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TOURISM DEVELOPMENT
IN
ONTARIO NORTH OF 50°

Volume Three
The Transportation Supply Foundations

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THE ROYAL COMMISSION ON THE NORTHERN ENVIRONMENT
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Royal Commission on the Northern Environment

From the Office of
the Commissioner

PREFACE

Relationship of Tourism to the Commission's Mandate

The mandate of the Royal Commission on the Northern Environment directs me to make recommendations concerning both the manner in which the development of major enterprises takes place in Ontario North of 50° and the means whereby decisions to undertake such enterprises are reached. Hence this Commission's program has been governed by my two overriding concerns. One is to find ways of ensuring that development, when it occurs, proceeds in an orderly fashion, working in concert with and not at the expense of the environment. The other is to explore various means of ensuring that northerners are involved effectively in decision-making on issues that affect them.

I regard tourism as a major enterprise having far-reaching implications for social and economic development, resource allocation and management, and environmental protection in all parts of Ontario North of 50°. And, for several reasons, I consider it to be a particularly appropriate enterprise for native people living in communities beyond the reach of the present network of all-season roads. The tourism sector clearly offers attractive opportunities for new development in the far north, with prospects for generating substantial income and employment for the people living there as well as benefits to the province as a whole. Tourist activities consume resources but need not deplete the basic stock of renewable biological resources on which they mainly depend provided that these resources are managed according to sound sustained-yield practices. Moreover, I am convinced that implementation of multiple-use resource allocation and management principles would permit tourist operations to co-exist over the long term with traditional, community-based trapping, hunting and fishing activities.

Native people and others living in Ontario North of 50° are understandably apprehensive that tourism could develop without adequate sensitivity to their circumstances and interests — that most of the economic benefits would leak outside the region while the adverse social and cultural impacts would be borne within it.

This must not happen, and need not. I believe that the kind of development that does occur must take advantage of the residents' existing economic and cultural relationships with their natural environment, secure a flow of benefits into their communities, and involve them fully in all aspects of planning, decision-making and facility operation.

Objectives and Scope of the Study

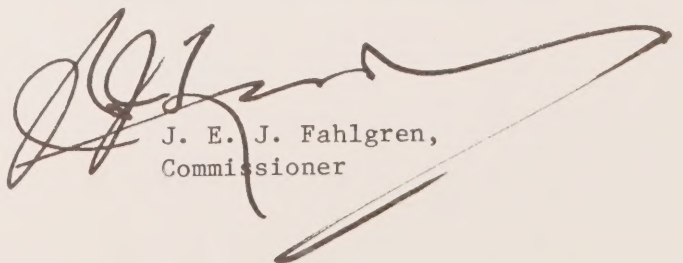
The Commission undertook this study of tourism prospects for Ontario North of 50° in order to obtain an assessment of the opportunities available, a set of realistic alternatives for tourism development, and a view of tourism's place in the spectrum of competing demands for the region's natural resources.

Since specialized wilderness resource-based tourism, encompassing hunting, angling, camping and travel, is clearly the most appropriate type for the greater part of Ontario North of 50°, the Commission's terms of reference for the study accorded it priority. Issues of general tourism and outdoor recreation were to be dealt with also, but only to the extent that they are manifest north of 50° or are likely to impinge on wilderness tourism there.

Implications for Further Action

The production of a development plan for the tourism sector is sorely needed but beyond the scope of my Commission. However, I am pleased to find that the study has an essentially practical orientation that will help others to draw up proposals that can be implemented, since it evaluates alternative policies and strategies for the allocation and management of renewable and terrain resources, for tourist market exploitation, for investment in tourist facilities and maintenance and management of them, and for attainment of local income and employment impact.

This study forms a crucial part of this Commission's research. I am relying on its findings, as well as on public submissions on tourism matters, in formulating my final recommendations. The reports on various aspects of tourism development will undoubtedly prove useful to those having responsibilities for planning and decision-making in the tourism field and can serve as a major source of information for participation by interest groups and the public generally in the planning and decision-making processes.



J. E. J. Fahlgren,
Commissioner

ACKNOWLEDGEMENTS

The author wishes to acknowledge the guidance given by Ian Fraser, Director of Research for the Royal Commission on the Northern Environment, on matters of scope, approach, methodology and review. The Commission kindly arranged for the production of this report and the maps. The editorial contribution made by Faye Rodgers, Research Officer with the Commission, was invaluable.

This publication has been prepared for the Royal Commission on the Northern Environment. However, no opinions, positions or recommendations expressed herein should be attributed to the Commission: they are those solely of the author.

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THE TRANSPORTATION SUPPLY FOUNDATIONS

INTRODUCTION

This volume on *The Transportation Supply Foundations* is one of a set of five presenting the results of the study of *Tourism Development in Ontario North of 50°* undertaken for the Royal Commission on the Northern Environment. The terms of reference for the study established three main objectives:

- 1) to assess the magnitude and socio-economic significance of development opportunities for wilderness-based tourism in the region;
- 2) to design a set of alternative policies and strategies to ensure that prospective local entrepreneurs are placed in a position to effectively exploit and benefit from these opportunities, and
- 3) to evaluate the future role of tourism within the context of increasing general development pressures and their associated economic, social and natural environmental consequences for people and resource uses in the region.

Four of the five volumes, including this one, present detailed technical information and evaluations for four components of the tourism field: the climatic resource foundations, the heritage resource foundations, transportation infrastructure, and tourist facility development. The fifth volume, *Issues and Policy Options*, summarizes the main issues confronting the development of tourism in Ontario North of 50° and identifies and evaluates the range of policy and strategy alternatives for resolving them. It represents a synthesis of the perspectives and insights gained during the course of the research.

The four detailed technical reports on components of the tourism field have a common four-part format. The first part, *Pattern*, describes and evaluates each component in relation to tourism development, adopting historic, current and future time perspectives as appropriate. In the case of this volume on transportation infrastructure, the discussion in this part is centred exclusively on the physical pattern of the air, road, rail and water transportation infrastructure and its implications and issues related to tourism development in Ontario North of 50°. It does not present a comprehensive evaluation of the total transport field in Ontario North of 50°. Market area identification and business viability aspects are dealt with in other volumes of this study. The highway traffic volume data presented are intended solely to support commentary related to the functional classification of the system. The physical patterns of air, road, rail and water transport are examined in considerable detail. Bus transport is considered as a sub-topic of highway infrastructure. The text is intended largely to serve as explanatory support for the pattern portrayed on the accompanying maps and in the functional classifications.

The second part, *Major Implications for Tourism Planning, Development, and Operation*, examines the implications of pattern in terms of opportunities and constraints facing government agencies, private entrepreneurs and researchers involved in investment and management planning and development and operational decision-making in the particular component of the tourism field under consideration.

The discussion in the third part, *Issues*, can serve as a basis for informed decision-making regarding the component and constitutes input for the volume on *Issues and Policy Options*.

The fourth part, *Support Documentation*, consists of three main sections. The first, *Related Agencies, Programs, and Information Output*, discusses the activities of agencies having functions related to the component and their interface with the tourism sector, and thereby provides useful information for those involved in the planning, development and operation of tourist facilities, particularly native communities and private entrepreneurs who may not be familiar with the research and decision-making structures of government for the component. The second, *Contacts Made in Course of Study*, lists the people who have contributed in an important way to this study and who may be useful to others in the future. The third, *References*, identifies the documents that were consulted during the course of the study.

PART ONE

PATTERN

PART ONE

PATTERN

AIR TRANSPORT

The treatment of this important topic opens with a brief summary of the range of licensed scheduled airline services that are significant in the consideration of tourism development in Ontario North of 50°. This introduction is followed by a functional description of the scheduled services that actually form a part of the present air transport infrastructure for tourism development in the area.

Attention is then directed to the functional classification and description of the pattern of airport and seaplane base facilities, both within and to the south of Ontario North of 50°, that represent the total physical air transport infrastructure for tourism. In addition, detailed information is provided for charter air companies based in these facilities.

SCHEDULED AND CHARTER AIR SERVICES

The classification and discussion of scheduled services are confined to the vital relationships with tourism development. The overall rationale for the establishment of the routes and their continued viability is not the concern of this study, even though some significant interrelationships with tourism are involved.

Classification of License Types and Weight Groups

Table 1 shows the various types of license issued by the Canadian Transport Commission under Air Carrier Regulations. Table 2 shows the weight groups for charter aircraft. A brief discussion of the salient implications of these aspects for tourism development in Ontario North of 50° accompanies the tables.

TABLE 1

CLASSIFICATION AND DESCRIPTION OF LICENSES RELATIVE TO TOURISM
IN ONTARIO NORTH OF 50°

Class 1 Scheduled Commercial Air Service License

This permits public transport of persons, goods and mail between Canadian points on a unit-toll basis in accordance with a defined service schedule. Only Thunder Bay, Timmins, and Winnipeg, the gateway points for continental and international travel to Ontario North of 50°, have Class 1 scheduled services. Air Canada, Nordair, Canadian Pacific and Northwest Orient are the important carriers involved.

Class 8 represents the international route counterpart of Class 1 and is applicable in some cases to gateway points for Ontario North of 50°.

Class 2 Regular Service Point Commercial Air Service License

This allows public transport of persons, goods and mail on a regular schedule between points in Canada on a unit-toll basis and in accordance with available services. Class 2 services are available to Attawapiskat, Big Trout Lake, Cochrane, Deer Lake, Dryden, Fort Albany, Fort Hope, Fort Severn, Geraldton, Hornepayne, Ignace, Kapuskasing, Kashechewan, Kenora, Lansdowne House, Moosonee, Pickle Lake, Pikangikum, Red Lake, Round Lake, Sioux Lookout, Sachigo Lake, Sandy Lake, Webequie and Winisk. Only three carriers, Austin Airways Limited, Bearskin Lake Air Service and norOntair, currently operate Class 2 services in the study area.

Class 9-2 is the international route counterpart of Class 2. Austin Airways Ltd. holds this type of license to operate between Minneapolis and Thunder Bay.

Class 3 Specific Point Commercial Air Service License

This is similar to Class 2 service but the carrier is not required to make a particular scheduled flight to a point when no traffic is available. Four carriers are licensed to operate Class 3 services in Ontario North of 50°, Austin Airways Ltd., Bearskin Lake Air Service Ltd., Slate Falls Airways Ltd., and Tomahawk Airways Ltd. These services are available to Armstrong, Bearskin Lake, Big Trout Lake, Deer Lake, Ear Falls, Fort Hope, Fort Severn, Geraldton, Hearst, Kasabonika, Kenora, Lansdowne House, Nakina, Ogoki, Pickle Lake, Pikangikum, Red Lake, Round Lake, Sachigo,

TABLE 1 Continued

Sandy Lake, Sioux Lookout and Webequie. It is noted that at times a Class 3 license held by a carrier to service a community may not be activated. For example, although Austin Airways Limited held Class 3 licenses for Armstrong, Ignace, Nakina and Ogoki, these points were not regularly serviced in March 1982. Moreover, many scheduled local services of Austin Airways are primarily mail routes including those from Pickle Lake to Cat Lake, Sachigo, Muskrat Dam, Bearskin Lake, Round Lake, Kingfisher Lake, Kasabonika and Webequie and that from Nakina to Ogoki.

Class 9-3 is the international route counterpart of the Class 3 service.

Class 4 Charter Service License

This allows a carrier to provide passenger and freight service within a stipulated distance from a specified base without positioning charges. Beyond the stipulated range, positioning charges must be levied. These charge restrictions are designed to protect a home base market territory for each carrier or group of carriers. This license is the foundation of current remote sportcamp operations across all of Ontario North of 50°. From the standpoint of tourism operations, two types of Class 4 charter licenses are generally distinguished.

- (a) Open License: This permits the holder to fly sportsmen and tourists, gear and supplies to any sportcamp or resort at any point in Ontario. The holder of such a license usually services a few of his own camps and those of other operators in his general vicinity, particularly those for which no positioning charges are required.
- (b) Restricted License: This permits the holder to fly guests, workers and supplies only to his own camp. Many holders of restricted licenses build up gradually to the open class 4 license.

Class 9-4 is the international route counterpart of the Class 4 charter license. For example, Ear Falls Airways Ltd. is licensed to provide this type of service between International Falls, USA and Ear Falls, primarily to bring in moose hunters. Many other carriers operating in the study area also hold this license.

TABLE 1 Continued

Class 5 Corporate Business License

This permits a corporation to fly its executives and staff, or those of other companies within a holding group arrangement. At present this type of license does not appear to be of major importance for tourism in Ontario North of 50°. It may have been used, however, by companies flying a group of employees from southern Ontario to sportcamps rented for a period of time.

Class 9-5 is the international counterpart of the Class 5 license.

Class 6 Flying Club License

These are not important for this study.

Class 7 Special Services Licenses

These are designed to cover a wide spectrum of special air transport requirements including such operations as crop dusting, forest spraying, construction, fire suppression and fish and game patrol.

Not important for this study.

Notes:

1. Based on Section 3, Air Carrier Regulations, Air Transport Committee, Canadian Transport Commission, Ottawa.
2. Companies such as Austin Airways Limited usually hold several types of license permitting them to provide a variety of services.
3. A community may be served by several types of licensed operations.

There are some problems associated with the Class 4 and private pilot licenses that require note. Sportcamp operators have been suspected of flying guests to their lodges using only a private pilot's license, claiming that they are friends rather than paying guests. Some of those with Class 4 restricted licenses are felt to be flying guests on occasion to camps other than their own, that is to say, they operate as if they held a Class 4 open charter license. These practices involve an enormous risk for the sportsman, the plane owners and the image of the tourism industry in general. If an accident should occur that the insurance companies will not cover because the trip violated the terms of the policy, the operator could be sued by the guest, possibly losing his plane, camp and other personal property. If the final settlement was unsatisfactory to the guest, or his heirs, because of lengthy delays in settlement, costly court proceedings or inadequate compensation, the image of the tourism industry in both Canadian and American markets could be severely impaired.

TABLE 2
WEIGHT GROUPS FOR CHARTER AIRCRAFT

<u>Group</u>	<u>Weight</u> ¹	
	<u>Kgs.</u>	<u>lbs.</u>
A	1950	4300
B	1951 - 3175	4301 - 7000
C	3176 - 8164	7001 - 18000
D	8165 - 34019	18001 - 75000
E	No charter licenses are issued for these weight groups in Ontario North of 50°	
F		
G		

Source: Directory of Canadian Commercial Air Services

¹Indicates the maximum authorized take-off weight of the aircraft on wheels. License holder must maintain a 25 per cent equity in any aircraft owned.

From the standpoint of tourism development in general and fly-in sportcamps in particular, Weight Groups A to C are all of major importance. Considering northern Ontario as a whole, where there were 272 licensed aircraft in 1980, about 38 per cent were in Group A (up to 1950 kg; 4300 lbs) that includes the Cessna 180 (1292 kg; 2850 lbs) and the Cessna 185 (1520 kg; 3350 lbs). About 30 per cent were in Group B (1952 to 3175 kg; 4301 to 7000 lbs), in which the Beaver (2313 kg; 5100 lbs), Piper 381 (3175 kg; 7000 lbs) and Piper Paz (2359 kg; 5200 lbs) are placed. About 24 per cent are in Group C (3176 to 8164 kg; 7001 to 18000 lbs) that includes the Otter (3629 kg; 8000 lbs), Norseman (3420 kg; 7540 lbs) and the Beech BE 18 (3958 kg; 8725 lbs). The DC3 (12202 kg; 26900 lbs) and the Hawker Siddeley HS-748 (20412 kg; 45000 lbs), important planes in the overall tourism operational patterns, are in Group D. The latter is a versatile plane that can carry 45 passengers or 5.5 tonnes of freight in easily adjusted combinations and is able to take off loaded in 1372 to 1646 meters (4500 to 5400 feet) of runway and land in 1036 meters (3400 feet). These characteristics make it ideal for use in remote settlements North of 50° where ground strips are generally 1067 meters (3500 feet) in length.

Sportcamp operations are a vital market component for a large percentage of the charter air services in Ontario North of 50°. Most of the operators of aircraft in Group A are primarily involved in the transport of guests, employees and supplies to sportcamps. Those in Groups B, C and D are probably engaged in other forms of charter business in addition to servicing sportcamps. It is clear, however, that to be profitable planes in the higher weight classes require substantial additional charter, freight and passenger business generated by mining exploration, remote community bulk transport and person travel related to social services such as health and education.

Classification and Pattern of Scheduled Services

The pattern of scheduled air services of significance for tourism development in Ontario North of 50° is summarized in the functional classification (Table 3). Several aspects require note.

The identification of the collection and distribution centres reflects current air travel, essentially to sportcamps to the south of the 11th base line and the Albany River in the western part of Ontario North of 50° and to goose hunting camps on the shores of Hudson Bay and James Bay. With any substantial development of tourism in the more remote areas north of 50°, the pattern could shift substantially with tourists moving directly from the gateway points to remote settlements like Sandy Lake, Round Lake and Big Trout Lake via scheduled services without changing or even stopping at Sioux Lookout. Special or extra flights could be set up without difficulty to meet a marked increase in this type of travel.

To date, scheduled air services have not played a major role in tourism travel in Ontario North of 50°, with the exception of the goose hunting camps on Hudson and James Bays, and even here the charter plane is an important feature. In the western part of the area, guests at sportcamps, who are the main element of the charter air tourist business, mainly travel to collection and distribution points or to roadside camps by automobile. Scheduled Class 2 and Class 3 services are expected, however, to assume greater importance in future tourist travel in the study area.

As shown in the accompanying classification (Table 3), tourists travelling by air towards destinations in Ontario North of 50° from off-continent countries and distant Canadian and American centres will terminate their Class 1 international and transcontinental scheduled flights at the gateway points of Timmins, Thunder Bay and Winnipeg. From here they will move by air to major regional collection and distribution points by Class 2 and Class 3 scheduled services noted subsequently.

Since the inauguration of the norOntair system with the commencement of the flight linking Sudbury, Earlton, Timmins and Sault Ste. Marie on October 18, 1971, the steady development of this provincial government-sponsored airline has neatly stitched up the scheduled air connection network to the major collector and distribution points. On October 19, 1973, administrative responsibilities for norOntair were transferred to the Ontario Northland Transportation Commission (ONTC). On March 4, 1977, On-Air Limited was contracted by ONTC to supply norOntair's northwestern Ontario services. Similar arrangements were entered into with Austin Airways Ltd. and Airdale to operate the eastern and central portions of the system. On August 6, 1975, Ontario published the first general aviation map showing the locations of ground facilities available to pilots at major airports.

AIR TRANSPORT INFRASTRUCTURE FOR TOURISM

A. Scheduled Air Services (September 1982)

To Gateway Points

- Air Canada (to Thunder Bay, Timmins, Winnipeg)
- Nordair (to Thunder Bay, Winnipeg)
- Austin Airways (to Thunder Bay)

To Major Collection and Distribution Centres

- Asio Trades (to Pickle Lake)
- Austin Airways (to Moosonee)
- Bearskin Lake Air Services (to Sioux Lookout)
- Ear Falls (to Ear Falls)
- nonOntario (to Cochrane, Kapuskasing, Pickle Lake)
- Parimeter Airlines

To Remote Settlements

- Austin Airways Ltd.
- Bearskin Lake Air Services
- Sabourin Airways

B. Facilities

I. Gateways

 Thunder Bay Timmins
Winnipeg

II. Major Regional Collection and Distribution Facilities

Grouping

- | | |
|--|----------------|
| A. Kenora, Minaki | F. Savant Lake |
| B. Dryden, Vermilion | G. Pickle Lake |
| C. Eagle River | H. Armstrong |
| D. Ignace | I. Geraldton/ |
| E. Red Lake, Ear Falls, Parryville Falls | J. Hearst |
| | K. Kapuskasing |
| | L. Cochrane |
| | M. Moosonee |
| | N. Hornepayne |

Air Base Water Base

- Serviced
- Non-serviced

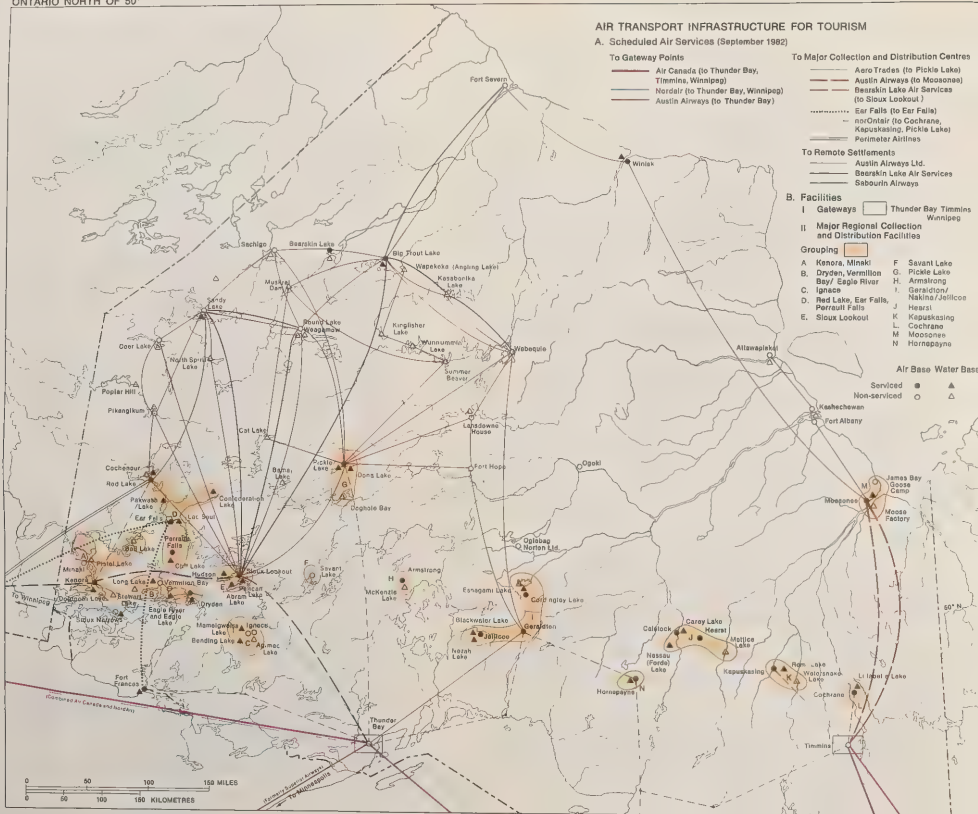


TABLE 3

A FUNCTIONAL CLASSIFICATION OF SCHEDULED AIR SERVICES
RELATIVE TO TOURISM DEVELOPMENT NORTH OF 50°

TO	FROM	CARRIER	TYPE OF SERVICE	
			Class	Frequency: W-Weekly D-Daily
A. <u>Gateway Points For International and Distant Continental Markets</u>				
<u>Thunder Bay</u>	Minneapolis	Austin	2	W-12
	Toronto	Air Canada	1	W-19 D- 3
	Winnipeg	Nordair	1	W- 7
		Air Canada	1	W- 7
		Nordair	1	W-25 D- 4
	<u>Timmins</u>	Toronto	Air Canada	1
<u>Winnipeg</u>	Chicago	NW Orient	1	W-20 D- 3
	Los Angeles	Air Canada	1	W- 7
	Vancouver	Air Canada	1	W-27 D- 4
		CP Air		W-21 D- 3
B. <u>Major Regional and Distribution Centres</u>				
<u>Geraldton</u>	Thunder Bay	Austin norOntair	2	W- 3 W- 7
<u>Pickle Lake</u>	Thunder Bay	Austin norOntair	2 2	W- 3 W- 7
	Winnipeg	Aero Trades	3	
<u>Moosonee</u>	Timmins	Austin	2	W-11
<u>Red Lake</u>	Ft. Frances /Kenora	norOntair	2	W-12 D- 2
	Pickle Lake	Austin	2	W- 6
	Winnipeg	Perimeter	2	W- 6
<u>Sioux Lookout</u>	Thunder Bay	Austin	2	W- 3
		Bearskin	2	W- 6
	Winnipeg	Bearskin	2	W- 6

TABLE 3 Continued

TO	FROM	CARRIER	TYPE OF SERVICE	
			Class	Frequency: W-Weekly D-Daily
C. <u>Remote Northern Settlements</u>				
(a) <u>Hudson/James Bay Coast</u>				
<u>Attawapiskat</u>	Timmins/ Moosonee	Austin	2	W- 6
<u>Fort Albany</u>	Timmins/ Moosonee	Austin	2	W- 6
<u>Fort Severn</u>	Timmins/ Moosonee	Austin	2	W- 1
	Sioux Lookout	Bearskin	3	W- 3
<u>Kashechewan</u>	Timmins/ Moosonee	Austin	2	W- 6
<u>Winisk</u>	Timmins/ Moosonee	Austin	2	W- 1
(b) <u>North Central Area</u>				
<u>Big Trout Lake</u>	Pickle Lake	Austin	2	W- 1
	Sioux	Austin	2	W- 6
	Lookout	Bearskin	2	W- 7
<u>Fort Hope</u>	Geraldton	Austin	2	W- 3
	Sioux Lookout	Austin	2	W- 3
<u>Kasabonika</u>	Pickle Lake	Austin	3	
	Sioux	Bearskin	3	W- 6
	Lookout			
<u>Kingfisher Lake</u>	Pickle Lake	Austin	3	
<u>Lansdowne House</u>	Geraldton	Austin	2	W- 3
	Pickle Lake	Austin		W- 3
<u>Ogoki</u>	Pickle Lake	Austin	3	

TABLE 3 Continued

TO	FROM	CARRIER	TYPE OF SERVICE	
			Class	Frequency: W-Weekly D-Daily
<u>Summer Beaver</u>	Pickle Lake	Austin	3	
<u>Wapekeka</u>	Pickle Lake	Austin	3	
<u>Webequie</u>	Geraldton	Austin	2	W- 3
	Pickle Lake	Austin	2	W- 3
	Sioux	Bearskin	3	W- 6
	Lookout			
<u>Wunnummin</u>	Pickle Lake	Austin	3	
(c) <u>Northwestern Area</u>				
<u>Bearskin Lake</u>	Pickle Lake	Austin	3	
<u>Cat Lake</u>	Pickle Lake	Austin	3	
<u>Deer Lake</u>	Pickle Lake	Austin	2	W- 2
	Red Lake	Austin	2	W- 4
<u>Muskrat Dam</u>	Pickle Lake	Austin	3	
<u>North Spirit Lake</u>	Pickle Lake	Austin	3	
<u>Pikangikum</u>	Pickle Lake	Austin	2	W- 6
	Red Lake	Austin	2	W- 6
	Sioux	Austin	2	W- 5
	Lookout			
<u>Poplar Hill</u>	Pickle Lake	Austin	3	
<u>Osnaburgh</u>	Pickle Lake	Austin	3	
<u>Round Lake</u>	Pickle Lake	Austin	2	W- 6
	Red Lake	Austin	2	W- 6
	Sioux	Austin	2	W- 6
	Lookout	Bearskin	2	W- 6
<u>Sachigo Lake</u>	Pickle Lake	Austin	2	W- 2
	Red Lake	Austin	2	W- 2
<u>Sandy Lake</u>	Pickle Lake	Austin	2	W- 6
	Red Lake	Austin	2	W- 6
		Sabourin		W- 3
	Sioux	Austin	2	W- 5
	Sioux Lookout	Bearskin	2	W- 6

Source: A synthesis of data contained in References [8], [9], [11]

The Northern Ontario Transportation Commission coordinates and subsidizes the operations of the three contract carriers. Through the Northern Ontario Resources Transportation Committee (NORTC), Twin Otters are supplied to these contract operators by the provincial government. This system that penetrates into Ontario North of 50° only at Red Lake and Pickle Lake is intended to meet two types of travel requirements; these include local inter-community travel that constitutes about 45 per cent of the passenger traffic and feeder travel to the inter-provincial and trans-Canada services of Air Canada, and Nordair that represents about 55 per cent of the volume. Each month norOntair averages 7000 to 8000 passengers, about 85 per cent of whom are engaged in business activities.

There are a number of problems associated with the norOntair services but none are considered to be of major consequence with respect to any feeder services for tourists to connector and distribution centres that the airline provides. NorOntair has a low level of sophistication in ground facilities and services, but the sportsman can easily cope with the situation. Fuel costs are high but every airline faces difficulties in this respect. On the positive side, norOntair has a 98 per cent scheduled service reliability which is high for this part of Ontario. It will probably fill any vacuum left if some of the other carriers curtail or drop services to smaller centres as they turn their air fleets over to jet aircraft requiring large volume loads to operate efficiently.

There is a considerable element of potential flexibility in the scheduled flight pattern from the gateway points so that the following discussion should be considered to be more in the nature of a general description of a current pattern that could be readily adjusted in response to market opportunities generated by tourist facility development North of 50°. It would be possible to fly directly from the gateways to remote interior settlements using Class 2 and 3 services without transfer and delays at the collection and distribution centres.

Scheduled Services to Gateway Points

While scheduled air services to the gateway points of Timmins, Thunder Bay and Winnipeg are excellent from an international and distant continental marketing standpoint, they are of modest importance at the present time for tourism in northern Ontario in general and Ontario North of 50° in particular. Apart from the goose hunting camps on the Hudson Bay and James Bay coastline, most of the tourists arrive by car, driving as close as they can to their destination in order to reduce charter flight costs to a minimum. Moreover, landscape touring in Ontario North of 50° is centered primarily on the southern parts of the area having a strong highway and secondary road network.

To move towards the Hudson Bay and James Bay Lowlands, tourists coming from Europe, the eastern seaboard of North America and the urban centres of the Great Lakes Lowlands have ample scheduled flights to Timmins (Air Canada, 11 flights per week). To reach tourist developments in the northwestern parts of Ontario North of 50°, similar scheduled services are available to the Thunder Bay gateway. Moreover,



Plate 1: Hawker Siddeley 748, providing scheduled services from Timmins to tidewater communities. (Source: Austin Airways Ltd.)

there is a service from Minneapolis to tap the midwestern American market. From Minneapolis, connections can be made with the air networks of Republic and Northwest Orient to all major centres in the eastern and southern United States. Finally, Winnipeg is an important gateway for tourism development up the western expanse of Ontario North of 50° by virtue of its national and international scheduled Class 1 route connections with the Orient via Vancouver, the west coast American metropolitan areas of Los Angeles and San Francisco, and New York, Cleveland, Chicago and Minneapolis in the east via Northwest Orient Airlines. There are equally convenient scheduled routes for European tourists. Currently, German sportsmen proceeding to camps to the north of Kenora at points both north and south of the 50th parallel of latitude are transported by chartered bus or taxi to float plane bases nearest to the remote hunting and angling camps in order to reduce flying costs. It seems reasonable to expect that the scheduled air service to the Winnipeg gateway will grow in importance from the standpoint of tourism development in Ontario North of 50°.

With the probable increasing importance of the European market and the vital role that it, and perhaps Japanese visitors, could play in future tourism, there is a possibility that a more convenient gateway location for the northwestern part of the area will emerge, perhaps at Kenora or Dryden. If long-distance tourist air travel were to build up sufficiently, there may be adequate justification for the lengthening of runways at these points.

Scheduled Services to Major Regional Collection and Distribution Centres

The scheduled air services to major regional collection and distribution centres distinguished in Table 3 are satisfactory from a tourism development standpoint. They do not, however, play as important a role as might be expected. In the western part of Ontario North of 50° located to the south of the 11th baseline and the Albany River, the bulk of general holiday landscape tourism is based on automobile highway travel. American and Canadian guests of sportcamps, who represent the bulk of the clientele up to the present time, drive as close as they can to their final destinations in order to reduce charter air costs. This pattern could be noticeably altered by new tourism developments in the remote northerly settlements of Ontario North of 50°, by vigorous penetration of European, Asian and distant continental markets, and by the possible decline of remote sportcamp operations in the south due to forest road construction with concomitant loss of wilderness attributes and decline in angling and hunting quality.

From an examination of Table 3 and the accompanying map, five major collection and distribution centres for scheduled services from the gateway points are readily distinguished. These are now discussed in summary fashion, moving from west to east across the study area. This is followed by brief comment on the services from these centres to remote settlements in Ontario North of 50°.

Of 3200 aircraft movements at the 16 remote airports in 1980, about 79 per cent could not have been handled without the runways installed under the recent construction program. Scheduled aircraft traffic represented 60 per cent of the movements. While 49 different aircraft users were recorded at the airports, most make very few flights; Austin Airways Ltd. handled virtually all the movements at eight airports and Austin and Bearskin Lake Air Service Ltd. at six centres. With the exception of Winisk and Fort Severn, Austin Airways was the principal carrier at all airports.

In 1980, about 47 per cent of the movements in and out of the remote airports involved heavy planes (DC3, DC4, C130 and HS748) [15]. These planes have costs per tonne-kilometer of one quarter or less than those of the DHC-2 (Beaver) and DHC-3 (Otter) on floats that they have largely replaced. The heavy plane emphasis in the movement pattern therefore is an indication that transport costs to remote settlements have been reduced, one of the main objectives of the construction program.

Pickle Lake, Sandy Lake, and Fort Hope have shown considerable growth in aircraft movements over the last few years, but the time span of observations is not sufficient to establish a reliable forecast. Over the remaining remote airstrips, traffic volume has remained fairly constant.

No information is available respecting the amount of tourist travel involved in the aforementioned 3200 aircraft movements at the remote settlement airstrips. While it is known to be quite small, a substantial increase in this component can be anticipated in the next five years if private investment in sportcamp and wilderness travel package tours takes place in Ontario North of 50°.

Scheduled services are now briefly reviewed in relation to six major collection and distribution centres.

Red Lake

Modest scheduled connector services from this centre to the Winnipeg and Thunder Bay gateways are available on a fairly frequent basis; the latter connection is via Austin Airways Ltd. through Sioux Lookout. The service of norOntair from Fort Frances through Kenora is also worthy of note.

Actually, it is the future position of Red Lake in relation to the Winnipeg gateway connection via Perimeter Airlines that is of major interest. This scheduled service could be of real importance in any attempt to expand tourism development in the remote native settlements along the western boundary region of Ontario North of 50° through the exploitation of the European and Asian markets.

Ear Falls

Ear Falls Airways Ltd. operates scheduled services from this community to Winnipeg and International Falls. The latter service is intended primarily to serve American moose hunters coming to camps in this western part of Ontario North of 50°.

Pickle Lake

A scheduled Class 2 service via norOntair from the Thunder Bay gateway is available daily to Pickle Lake. Aero Trades operates a Class 3 run directly from the Winnipeg gateway to this collection and distribution point, but the services are essentially freight-related.

Sioux Lookout

Bearskin Lake Air Service provides Class 2 scheduled air services from both the Thunder Bay and Winnipeg gateways to Sioux Lookout on a daily basis. From this regional collection and distribution point, Class 2 or 3 scheduled air services are available to almost all remote settlements in

the northern and western sections of Ontario North of 50°. From the standpoint of the logistics of tourist air travel by scheduled route, this community is in a strong position at the present time.

Geraldton

Both Austin Airways Ltd. (Class 2) and norOntair (Class 2) provide scheduled air services to Geraldton. From here there are links with the network of Class 2 and 3 routes operated by Austin Airways Ltd. to remote settlements in the central part of Ontario North of 50°.

Moosonee

The designation of Moosonee as a collection and distribution point is challengeable. However, scheduled routes northward to coastal settlements can be boarded here as well as at Timmins. Tours could be developed that use the Polar Bear Express to this centre and then air trips to settlements to the north in a composite package arrangement. There is a clear break between Moosonee and the previously noted organization and distributional centres for the central and western part of Ontario North of 50°. Moreover, there is no possibility in the foreseeable future of scheduled air services from Moosonee reaching directly to the interior to the northwest. In effect there is a clearly demarcated and self-contained pattern of routes here.

From these regional collection and distribution centres, the tourist may obtain Class 4 charter services to sportcamps or individual remote communities, particularly if they are not too distant. Alternatively, he may use Class 3 scheduled services if the tourist and outdoor recreation activity is centred adjacent to or commences from a remote native community. If the ultimate destination is a sportcamp or a landscape feature some distance from the remote native community North of 50°, Class 4 charter services may be required.

The scheduled routes for the remote settlements in the northwestern part of Ontario North of 50° are operated largely by Austin Airways Ltd. Some services are provided by Bearskin Lake Air Service operating out of a Pickle Lake base. The minor concentrations of routes at the settlements of Round Lake and Big Trout Lake are immediately evident on the map. Many of the services, including those to Cat Lake, Bearskin Lake, Muskrat Dam and Sachigo, are mainly mail routes.

As noted previously, considerable shifts in scheduled air services, particularly in the spring, summer and fall seasons, could result from a strong build-up of tourism in Ontario North of 50°. There is enormous potential for experimentation and flexibility in the system even though one company holds such a large number of route licenses to the remote settlements; some of these routes are not now in operation but could be activated at any time. For example, Austin

Airways Ltd. holds a Class 3 charter from Thunder Bay to Armstrong and Fort Hope. This could be activated to provide a direct link from the gateway to Webequie or Fort Hope. A direct flight from Thunder Bay to Sandy Lake, Round Lake or Big Trout Lake using the scheduled Class 2 and 3 routes of Bearskin Lake or Austin Airways could be instituted. The basic point is that the element of flexibility required for an almost instantaneous response to opportunities generated by tourism is present.

In conclusion, it is useful to summarize the scheduled air services in terms of the three major regional divisions of Ontario North of 50°.

Class 2 scheduled services are operated by Austin Airways Ltd. to settlements in the *Tidewater region*, along the coast of Hudson Bay and James Bay, from Moosonee. There are six one-way flights weekly to Fort Albany, Kashechewan and Attawapiskat and one to Winisk and Fort Severn. Class 2 services operated by Austin Airways Ltd. and Class 3 services by Bearskin Lake Air Service (three times per week) connect Big Trout Lake with Fort Severn. The latter point is linked to the Winnipeg gateway via Sioux Lookout by a thrice-weekly Class 2 service of Austin Airways Ltd. A tourist also could move northward from Geraldton through Webequie and Big Trout Lake to Fort Severn.

The scheduled routes northward from Geraldton serve the remote communities in the *central portion* of Ontario North of 50°. Routes leading from Pickle Lake also provide access to Fort Hope, Lansdowne House and Webequie. The competitive position of the Geraldton and Pickle Lake scheduled routes is obvious as is the concentration of routes at Big Trout Lake; both aspects are of some importance for tourism planning. The runs from Pickle Lake to Summer Beaver, Kingfisher, Wunnummin and Wapekeka are essentially Class 3 scheduled mail services. Austin Airways Ltd. also operates a scheduled Friday flight from Nakina to Ogoki that is of a similar type.

The scheduled routes for the remote settlements in the *north-western part* of Ontario North of 50° are operated largely by Austin Airways Ltd. from its Pickle Lake base. Some services are provided by Bearskin Lake Air Service from its base at Sioux Lookout. The minor concentration of routes at the Sandy Lake settlement is noticeable and about equivalent to that at Round Lake identified previously. Many of the services are largely mail routes including those to Cat Lake, Bearskin Lake, Muskrat Dam and Sachigo.

PHYSICAL FACILITIES

Attention is now directed to the pattern of the physical air transport infrastructure for tourism development in Ontario North of 50°. The distribution of airstrip and seaplane bases is noted, including runway scale and service status. The scale of the aircraft operations based at each point is recorded by company and fleet size.

General Functional Classification

The classification adopted (Table 4) is functional and roughly corresponds to that utilized in the previous discussion of scheduled airline routes. It is apparent, however, that it is a much more incisive tool for describing and explaining physical infrastructure.

Initially, a threefold classification of a functional/geographic nature is employed in which all broad categories are utilized, including Primary Gateway Facilities, Major Regional Collection and Distribution Facilities and Remote Settlement Destination Facilities. At a lower level in the organization of the data base, geographic groupings designated by general place location are employed. Within these, the individual airstrip and seaplane bases are listed by community or water body together with the air operations (companies and planes) located at these points.

The availability, condition and operating responsibility for each airport or seaplane base are shown in the table. They represent a synoptic picture of a situation that is constantly changing but generally improving in response to a build-up in traffic volume, community service and social requirements, and company decision-making. With any substantial increase in tourism in Ontario North of 50°, accelerated improvements at remote airports are a distinct possibility.

Airports at the gateway points (Timmins, Thunder Bay, Winnipeg) are owned and operated by Transport Canada. In addition, this federal agency has responsibility for some airports classified as Major Regional Collection and Distribution Points; these are Red Lake and Moosonee in Ontario North of 50° and Kenora, Dryden and Kapuskasing farther south. All these airports are fully serviced. It is not likely that there will be increased federal responsibilities for the airport pattern in the foreseeable future, especially in Ontario North of 50°.

The Ontario Ministry of Transportation and Communications occupies a crucial position in the operational pattern of the landing strips in Ontario North of 50°. For a number of years this agency has operated the strips that provide access to the settlements on the coastline of Hudson Bay and James Bay. A government decision was made in 1968 to rely on air transport to meet the needs of remote inland native settlements for freight haulage and person travel, and particularly to relieve the isolation during the spring break-up and winter freeze-up. A system of airstrips was quickly built in all communities considered for services at that time except Kingfisher and Wapekeka. If the bands at those settlements indicate a desire, airstrips also will be constructed there.

Feasibility and impact assessment studies were completed for each airstrip. Construction costs usually reached about \$750,000 for the strip plus additional charges for access roads. Interestingly, tourism was never mentioned in any of these studies, even though the system now in place is an important element in the foundation infrastructure required for the development of that tertiary industry sector in Ontario North of 50°.

The criteria for airport construction in remote settlements are somewhat flexible. The break point is usually considered to be 100,000 ton-miles of freight annually. From a social standpoint, a resident population of 200 or more people is taken as a basic requirement. If the population factor is modest, the freight requirement may be modified to 50,000 local ton-miles.

Airports at communities just north and south of 50° north latitude, representing both collection and distribution points and the southern terminals of scheduled routes to remote northern settlements, are frequently municipally-owned and -operated. Included in this group are Cochrane, Hearst, Geraldton, Nakina, Sioux Lookout, Vermilion Bay, Ear Falls and Minaki.

There are a number of private and provincial government-operated ground strips in the study area, as shown on the accompanying map. These include Savant Lake (Rusty Myers Flying Service) and River Melchett (Oglebag and Norton Ltd.). The three abandoned gravel strips in Polar Bear Provincial Park were constructed in the mid-1950's under the Mid-Canada Line defence system and operated until about 1965 (Site 415 south of Cape Henrietta Maria; Site 421, Brant River; Site 506, 80 km west of Winisk). With modest repairs Site 415 could be brought into service on a regular basis.

The strips recently constructed by the Ontario Ministry of Transportation and Communications in isolated inland northern communities are 1069 meters (3500 feet) in length and gravel-surfaced. They can handle freight aircraft up to a Hercules in size and are adequate from a tourism development standpoint, able to accommodate the HS 748. Ground facilities, while minimal, are not an important handicap. On the coast of Hudson Bay and James Bay, the strips at Fort Albany, Kashechewan, Attawapiskat and Fort Severn are of a similar scale. The runway of the federally-operated airport at Moosonee is 1219 meters (4000 feet) and that at Winisk 1524 meters (5000 feet); both are gravel-surfaced. These runways also can handle substantially sized passenger aircraft up to a DC3 and are satisfactory for the Hawker Siddeley HS 748.

Runways at the major regional collection and distribution airports shown in the table are greater in length and paved. As noted earlier, Moosonee's is 1219 meters (4000 feet) and paved. Pickle Lake's is 1372 meters (4500 feet) and asphalt-surfaced, Red Lake's is 1219 meters (4000 feet) and paved, and Sioux Lookout's is 1219 meters (4000 feet) and paved.

Seaplane bases in and near the collection and distribution centres are generally operated by private air carriers and are for the most part fully serviced. Bases in the remote northern settlements are frequently operated by local Indian bands. The Hudson's Bay Company and private carriers have assumed responsibilities in some cases as has the occasional sportcamp operator. At most of these remote bases no services are available.

TABLE 4

PHYSICAL AIR TRANSPORT INFRASTRUCTURE FOR TOURISM DEVELOPMENT IN ONTARIO NORTH OF 50°

JUNE 1982

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes Own or Lease
<u>I Gateway Facilities</u> (Terminal of continental and international air travel)							
Timmins Thunder Bay Winnipeg	Transport Canada		Yes Yes Yes			Not considered of major importance for the purposes of this report	
<u>II Major Regional Collection and Distribution Facilities</u>							
<u>A. Kenora/Minakid Group</u>							
1. Kenora	NOT	1830 paved	Yes			Kenora Air Services Ltd T. Johnson 120 Main St Kenora P9N 1T1 (Class 4, open 9-4)	Cessna 180 Cessna 185 Beaver Beech 18 Otter 0 0 0 L 0
						Walsten Air Services Neil Walsten Box 706 Kenora (Class 4, open 9-4)	Cessna 180 (2) Cessna 206 Piper 18 Piper 23 Beech 18 0 0 0 0 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes Own or Lease
Lake of Woods (Kenora)						Bearskin Lake Air Service (See Sioux Lookout)	
				Parsons Airways Ltd	Yes	Hel Air Ltd L.R. Camphoug C/O Viking Helicopters Box 5104, Ottawa Parsons Airways North- ern Ltd Box 759 Flin Flon, Manitoba R8A 1N6 (Class 4, open 9-4)	Hughes HL5 (8) ILL 0 0
Dogtooth Lake				Dogtooth Air Services	No	Dogtooth Air Services Wm. Renner 611-6th St. Kenora P9N 206 (Class 4 restricted)	Cessna 180 0
2. Minaki	Minaki Lodge Resort	671 asphalt (enlarg- ing)	No				

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Pistol Lake				River Air Ltd	Yes	River Air Ltd E.N. Halley Box 308 Kenora (Class 4 open)	Cesna 180	0
Roughrock Lake				Margot Seefield	Yes			
Ball Lake				Ontario Central Airlines Ltd	No	Ontario Central Airlines Ltd Gimli Manitoba (Class 4, open 9-4)		
3. Sioux Narrows	Sioux Narrows Airways Ltd	915 grass	No			Sioux Narrows Airways Ltd 110 Sanford St Winnipeg Manitoba K3H 2Z9 (Class 4 open)		
Lake of Woods Regina Bay				North- western Flying Services Ltd	Yes	Northwestern Flying Services Ltd J.P. Kayfees Nestor Falls POX 1K0 (Class 4, open 9-4)	Cessna 198 Beaver (2) Beech 18(2) Otter	0 0 0 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
B. <u>Dryden/ Vermilion Bay/ Eagle River Group</u>						<u>Austin Airways Ltd</u> (See Pickle Lake)		
1. Dryden	Town of Dryden	1647 paved	Yes			<u>Ear Falls Airways Ltd</u> (See Ear Falls)		
Wabigoon Lake				<u>Swanair Ltd</u>	Yes	<u>Swanair Ltd</u> <u>R. Swanson</u> Dryden (Class 4, open 9-4)	Cessna 185 Beaver	0 0
2. Eagle River	Lindmeier's North Shore Lodge	610 clay						
Eagle Lake				<u>R. Lind- meier's</u> North Shore Lodge	Yes			
3. Vermilion Bay	Wilderness Enterprises (Machin Twp is owner)	1000 gravel	No					
Long Lake				<u>Wilder- ness En- terprise</u>	Yes	<u>Wilderness Air Ltd</u> <u>Robbie Robinson</u> Vermilion Bay POV 2V0 (Class 4, open 9-4)	Cessna Beaver	0 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Own or Lease Planes
Stewart Lake				Stewart Lake Airways Ltd		Stewart Lake Airways Ltd Pres. Bill Kryluk Box 127 Vermilion Bay P0V 2V0 (Class 4 restricted)	
C. Ignace Group							
1. Ignace	Ignace Twp	915 gravel	No				
2. Private Ignace Airways Strip	Ignace Airways	854 cinder	No			Ignace Airways Box 244 Ignace	
Agimak Lake				Ignace Airways	No	Ignace Airways Box 244 Ignace	
Bending Lake				Bending Lake Airways	Yes	Bending Lake Airways Box 145 Ignace	
Mameigweiss Lake				Hanson Lodge Box 129 Ignace	Yes		
D. Red Lake, Ear Falls, Perrault Falls (Highway 105) Group							
1. Red Lake	Transport Canada	1220 paved	Yes				

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	Planes	Own or Lease
	Operator	Length (Meters)	Serviced	Operator	Serviced			
Red Lake - Cochenour - Bruce Channel				Sabourin Lake Airways	Yes	Sabourin Lake Airways Ltd	Cessna 180	0
						Pres. N. Hegland Box 70, Cochenour POV 110 (Class 4 open)	Cessna 185	L
						Green Airways Ltd	Beech 18(2)	0
						Pres. J. Green	Piper PA23	L
						Red Lake POV 2M0 (Class 4 open)	Otter	0
							Beaver	0
							Cessna 180	0
							Stinson ST 10	0
							Beaver (3)	0
							Beech 85	0
						OHU Norse- man (2)	0	
							DC3/C47	0
						Sky-North Ltd W.A. Geary Jr. Goldshore Road Red Lake POV 2M0 (Class 4 restricted)		
						Austin Airways Ltd (See Pickle Lake)		
						Wings Aviation Ltd Red Lake POV 2M0 (Class 4 open) suspended	Cessna 185	0
						Tomahawk Airways Ltd (See Sandy Lake)	Beaver	0
							Otter	0
							Norseman	2

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Pakwash Lake				Snake Falls Flying Service Ltd	Yes	Snake Falls Flying <u>Service Ltd</u> W.D. Jones Box 327 Red Lake POV 2M0 (Class 4 open)	Cessna 180 Cessna 208	0 0
2. Ear Falls	Municipal	1220 paved	Yes					
Lac Seul				Ear Falls Airways Ltd	No	Ear Falls Airways Ltd <u>B. Leman</u> Box 8 Ear Falls POV 1T0 (Class 4, open 9-4)		
						Lac Seul Airways Ltd <u>T. Hanaway</u> Box 39 Ear Falls POV 1T0 (Class 4 open)	Cessna 180 Piper PA18 Otter (2) Beaver (2)	0 0 0 0
Confederation Lake				Kabeelo Airways Ltd	Yes	Kabeelo Airways Ltd <u>115 Chipman St.</u> Box 609 Kenora P9N 3X6 (Class 5)		

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
3. Perrault Falls Cliff Lake	W.M. Bousefield	763	Yes	Northern Waters Air Service	Yes	(Class 4 open) <u>Northern Waters Air Service</u> Camp Robinson Ontario POW 2K0 (Class 4, open 9-4)	Beaver	0
<u>E. Sioux Lookout Group</u>								
1. Sioux Lookout	Municipal	1281 paved	Yes			<u>Bearskin Lake Air Service</u> Pres. H. Freisen Box 1447 Sioux Lookout POW 270 (Class 4, open 9-4)	Cessna 180 Cessna 185 Beaver Otter Aztec Navajo Beech 99 Saunders ST27	0 0 0 0 0 0 0 0
						<u>Slate Falls Airways Ltd</u> Box 188 Sioux Lookout POW 2T0 (Class 4 open)	Cessna 180 (4) Piper PAZ Beaver Beech 18	0 L 0 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Pelican Lake				Bearskin Lake Air Service	Yes	(See Sioux Lookout)		
				Central Air Trans- port	Yes	Central Air Transport Ltd (See Pickle Lake) (Class 4, open 9-4)	Cessna 185 Beaver Otter	
Abram Lake (Hidden Bay Lodge, Hwy 27) Carl Reenke (USA)				Pine Air	Yes	Pine Air Inc Pres. F. Kent Box 248 Sioux Lookout (Class 4, open 9-4)	Cessna 185	
Lost Lake (Hudson)				Starratt Trans- port Ltd	Yes	Starratt Transport Ltd J.D. Starratt Hudson POW 1X0 (Class 4, open 9-4)	P82 Foundbros	0
F. Savant Lake Group								
Savant Lake	Rusty Myers Flying Service	912 gravel				Rusty Myers Flying Service Irene Meades Fort Frances (Class 4, open 9-4)	Cessna 180 Beaver	0 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
G. <u>Pickle Group</u> 1. Pickle Lake	MTC	Asphalt	Yes			Central Air Transport	Cessna 185	0
						G.A. Swartman Box 399 Sioux Lookout POW 210 (Class 4, open 7)	Beaver Otter	0 0
Pickle Lake						Austin Airways Ltd (Northwestern Ontario) Base at Pickle Lake Vice-Pres. W. Deluce Timmins (Class 4, open 9-4)	Cessna 180 Cessna 185 Cessna 310 Cessna 402 Beaver Otter Norseman DC3	0 0 0 0 0 0 0
						As Above		
Dona Lake				Austin Airways	Yes	Central Patricia Outfitters Ltd	Cessna 180	0
						E. Bottomfield Box 128 Pickle Lake (Class 4 restricted)	Beech 18	0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes Own or Lease
Lac St. Joseph, Doghole Bay				Doghole Airways	No	Doghole Airways (Formerly Osnaburgh Airways) P.R. Johnson New Osnaburgh Rat Rapids POW 2H0 (Class 4 open)	Cessna 185 0
H. <u>Armstrong Group</u>							
McKenzie Lake	MTC	1129 paved	Yes	Huron Air and Outfit- ters	Yes	Huron Air and Outfitters Ernest Nichols Box 122 Armstrong (Class 4 open)	Cessna 185 0
I. <u>Geraldton/Nakina</u>						Sportsmen's Outfitting and Air Charter Service R.G. Smith Box 85 Nakina (Class 4 open)	Cessna 180 Cessna 337 Beaver (2) 0 0 OL
<u>Jellicoe Group</u>							
1. Geraldton	Town of Geraldton	1525 paved	Yes			Kyro's Albany River Airways Ltd (See Jellicoe) (Class 4 open)	

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip		Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base			
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
<u>J. Hearst Group</u> 1. Hearst 2. Calstock (Cerey Lake)	Town of Hearst	1068 paved	Yes			Hearst Air Services Ltd Real Gosselin Box 1180 Hearst PQL 1N0 (Class 4 open)	Cessna 185 Beaver Piper 12 Navajo Chieftain	0 0 L 0
	Hearst Air Services	967 gravel	Yes			North Star Helicopters Real Gosselin Box 1180 Hearst PQL 1N0 See Calstock Lake		
Carey Lake				Hearst Air Services Ltd	Yes			
Nassau Lake (Forde Lake)				Forde Lake Air Services	Yes	Forde Lake Air Services Ltd G. Martin Box 417 Hearst (Class 4 open)	Cessna 180 Cessna 185	L 0

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip		Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base			
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Mattice Lake				Ferring Williams	No	Ferring Williams Box 178 Armstrong POT 1A0 (Class 4 restricted)		
<u>K. Kapuskasing Group</u>								
1. Kapuskasing	Transport Canada	1373 paved	Yes			Frontier Air Services Ltd C. Boucher and W.Sinai Box 465 Kapuskasing (Class 4 open)	Beech 85	0
<u>L. Cochrane Group</u>						Stardust Aviation Ltd F. Szekely Box 1019 Kincardine Ontario NOC 200 (Class 7 Specialties)		
1. Cochrane	Town of Cochrane	1068 paved	Yes					

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes Own or Lease
Lillabelle Lake				Lind- berghs Air Service	Yes	Lindberghs Air Service	Beaver Otter
						L. Rogerson Box 998 Cochrane POL 100 (Class 4 open)	0 0
						Cochrane Air Services	
						J. Veverka 303 5th Avenue Cochrane POL 100 (Class 4 restricted)	0
<u>M. Moosonee Group</u> 1. Moosonee						Polar Bear Camps and Outfitters	
						S. Knopelky Box 396 Cochrane POL 100 (Private Plane)	
						James Bay Outfitters	
	Moosonee Develop- ment Area Board	1220 gravel	Yes			Austin Airways Ltd (See Pickle Lake) (Class 2,3,4 open 9-4, 7)	Beaver Otter (2) Cessna 180 Cessna 185 HS 748-2A

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes Own or Lease
Coast	James Bay Goose Camps	915 gravel	No				
Moose Factory				Austin Airways Ltd	No	(See Pickle Lake)	
Moose River				Austin Airways Ltd and Bush Land Airways	Yes	(See Pickle Lake)	
N. Hornepayne Group						Bush Land Airways Rev. L. Linton	Piper PA18
						Baie-du-Poste, Quebec GOW 100 (Class 4 open)	L
1. Hornepayne	Town of Wickstead	1068 paved	Yes	Horne Air Ltd	Yes	Horne Air Ltd Highway 631 North White River (Class 4 open)	
III Destination Area Facilities							
Attawapiskat	MTC	1068 gravel	No				

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Attawapiskat				Austin Airways Ltd	No			
Bearskin Lake	MTC	1068 gravel	Yes					
Bearskin Lake				Hudson Bay Co.	No			
Big Trout Lake	MTC	1037 clay	Yes					
Big Trout Lake				Bearskin Lake and Big Trout Lake Air Services	Yes	Bearskin Lake Air Service (Class 4 open)		
						Big Trout Lake Air Services	Cessna 180	0
						Brian Barfoot	Cessna (2) 185	
						Big Trout Lake (Class 4 open)	Cessna 206	
Cat Lake				Hudson Bay Co.	No			

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base	
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes
Deer Lake	MTC	1068 gravel	No				
Deer Lake				Reid's Hinter- land Camps	No		
Fort Albany	MTC	1068 gravel	No				
Albany River				Austin Airways Ltd	No		
Fort Hope	MTC	1068 gravel	No				
Fort Severn	MTC	1068 gravel	No				
Kasabonika Lake	MTC	1068 gravel	No				
Kasabonika Lake				Kasabon- ika Indian Band	No		

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Kashechewan	MTC	1068 gravel	No					
Kingfisher Lake				King- fisher Lake Band	No			
Lansdowne House	MTC	1068 gravel	No					
Attawapiskat Lake				Austin Airways Ltd				
Muskrat Dam Lake				Nakina Outpost Camp	No			
North Spirit Lake				North Spirit Lake Band	No			

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip		Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base			
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Ogoki	MTC	610 gravel	No					
Pikangikum	MTC	1068 gravel	No					
Pikangikum				Pikang- ikum Air Services Ltd	No	Pikangikum Air Services Ltd W.W.T. Wright Box 1970 Kenora P9N 2X8 (Class 4 open)		
Poplar Hill (Berens River)				Poplar Hill Indian Band	No			
Round Lake (Weagamow)	MTC	1068 gravel	No	Weagamow Corpor- ation	No	Weagamow Corporation Round Lake KOH 2J0 (Restricted to Band)		
Weagamow Lake				Slate Falls Airways	No	Slate Falls Airways (See Sioux Lookout)		

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Sachigo	MTC	1068 gravel	No					
Sachigo Lake				Sachigo Lake Indian Band	No			
Sandy Lake	MTC	1068 clay	No					
Sandy Lake				Tomahawk Airways Ltd	Yes	Tomahawk Airways Ltd (Big Hook Airlines Ltd) T. Brotherston Sandy Lake POW IV0 (Class 4 open)	Cessna 185 Cessna 206 CessnaC402	0 0 0
East English Lake				Big Hook Wildern- ess Camp	No	(See Tomahawk Airways Ltd. Above)		
Slate Falls (Bama ji Lake)				Slate Falls Trading Company	No	(See Slate Falls Air- ways Ltd, Sioux Lookout)		

TABLE 4 Continued

Functional Category, Location Grouping and Point	Airport/Landing Strip			Seaplane Base		Licensed Charter Facilities, Companies and Aircraft At Base		
	Operator	Length (Meters)	Serviced	Operator	Serviced	Company and Type of License	Planes	Own or Lease
Summer Beaver				Fort Hope Band	No			
Wapekeka (Angling Lake)				Wapekeka Indian Band	No			
Webequie	MTC	1068 gravel	No					
Winisk	MTC	1525 gravel	Yes					
Winisk River				MTC	Yes			
Wunnumin Lake				Wunnum- in Lake Band	No			

Source: References [9], [14], [15], [16]

The construction and operation/maintenance costs for the remote airstrips are indicated in Table 5. There is a considerable range in the capital charges, but in many cases this is a reflection of the stage of completion by 1980/81. In general, costs for the completed strips and related facilities are in the order of \$1.0 to \$1.5 million. For the busy airports, operation and maintenance costs range from \$30,000 to \$80,000 annually.

The listing of the charter aircraft companies based at the various airports and seaplane facilities is of major interest from the standpoint of the logistics of current and future tourism development in general and sportcamp operations in particular. Some explanatory comment, therefore, is desirable.

One company may be licensed to operate out of several bases. For example, Austin Airways Ltd. has main bases at Timmins, Moosonee and Pickle Lake. Hearst Air Services Ltd. holds licenses for Hearst airport, Carey Lake seaplane base and their Calstock strip. Occasionally, services are operated jointly by companies, and it appears that there is a considerable amount of reciprocity involved in the use of seaplane bases on a short-term basis.

In some cases seaplane bases are operated by individuals or groups that do not have a charter to operate an air service. The water bases in remote Indian settlements that are operated by local bands are cases in point. Lindmeier's North Shore Lodge operates a 610 meter (2000 foot) ground strip at Eagle River and a seaplane base in Eagle Lake but does not have planes. Seaplane bases operated by Minaki Lodge and by Margo Seefield on Roughneck Lake represent similar situations.

Some airports, or more properly airstrips, listed in the table are private, non-licensed facilities. The strip at Vermilion Bay owned by Machin Township and operated by Wilderness Enterprises is an excellent example, as is that at Eagle River maintained by Lindmeier's North Shore Lodge.

The disposition and scale of the fleets of the various schedule and charter companies can change considerably in response to shifting market conditions. Rented aircraft can be given up, planes sold and the numbers at specific points quickly decreased or increased. In effect, this aspect of the pattern shown in the accompanying table should be regarded more as a general indication of scale rather than a precise accounting of the situation. Moreover, it is essential to note that the focus of this portion of the inventory of infrastructure is on charter operations that are significant for tourism development in remote locations in Ontario North of 50°. No attempt was made to document the full range of planes available for scheduled and freight services at these points. In effect, only the aircraft considered to be important in the transportation of sportsmen and supplies to remote outpost camps are included, and in some cases even these data could not be fully obtained from central documentary sources.

The air carriers listed in the table display a highly varied pattern of involvement in and dependence on tourism in general and hunting and angling camp operations in particular. In some cases, as for example Pine Air, the carrier is almost entirely dependent on sportcamp operations, the air operations being essentially an integral component of the overall development. In other cases, as for example, Hearst Air Services Ltd., Lindbergh's Air Service Ltd. and Nakina Outpost Camps, the carrier operates a number of sportcamps as an individual company or as a subsidiary type of enterprise. In these cases, the sportcamps may generate a substantial proportion of the total charter air business; the transport of passengers and freight to remote settlements, to mining exploration areas and to other points of economic activity represents the other market components. It is clear, however, that a large percentage of the carriers listed in the table, particularly the smaller operations, rely heavily on the tourism business to remain solvent and to generate a reasonable profit margin under operating account. Finally, there are some carriers that are only peripherally involved, as for example, the helicopter services out of Pickle Lake that may fly out a few trophy animals during a fall hunting season.

Patterns of Gateway, Collection and Distribution Centres

The primary gateway facilities include the airports of Timmins, Thunder Bay and Winnipeg. No information has been provided respecting the type and scale of the aircraft based at these points. This is not of major consequence in relation to air transport infrastructure for tourism development in Ontario North of 50°, except to note that the situation is satisfactory, since the airports can handle the full range of aircraft on the transcontinental routes that have meaning in the situation under study.

As stated, these are the terminal points of Class 1 scheduled services of Air Canada, Nordair, Canadian Pacific Airlines and Northwest Orient, from which the tourist or sportsman transfers for travel to collection and distribution points by regional scheduled air carriers, charter air services or, in some cases, ground transportation. European anglers and hunters and Americans travelling by air from the distant southwest who are guests of sportcamps to the north of Kenora are currently transported by chartered bus or taxi from Winnipeg. Those deplaning at Timmins for camps to the north will travel by taxi to the float plane bases at Lillabelle Lake just north of Cochrane or be picked up by arrangement with the host camp operators. From these gateway airports frequent Class 2 and Class 3 scheduled services are available to collection and distribution centres such as Sioux Lookout, Red Lake, Hearst and Moosonee. From there they may obtain charter flights to fly-in locations, or connections can be made with other Class 3 scheduled services to the remote settlements in Ontario North of 50°.

TABLE 5

CONSTRUCTION AND MAINTENANCE COSTS FOR REMOTE AIRPORTS IN
ONTARIO NORTH OF 50°
FISCAL YEARS 1968/69 TO 1980/81

Airport	1968/69 to 1972/73	1973/74 to 1980/81			1968/69 to 1980/81
	Construction and Maintenance \$ (000)	Construction \$ (000)	Maintenance		Total Construction and Maintenance \$ (000)
			Total \$ (000)	Average ¹ \$ (000)	
Armstrong	-	126.1	-	-	126.1
Attawapiskat	280.7	981.4	497.5	71.1	1,759.6
Bearskin Lake	-	735.5	161.5	82.5	897.0
Big Trout Lake	250.4	240.7	689.4	98.5	1,180.5
Deer Lake	-	1,264.6	38.6	30.0	1,303.2
Fort Albany	90.9	105.9	220.0	31.4	416.8
Fort Hope	6.7	831.8	483.8	69.1	1,322.3
Fort Severn	138.8	1,049.5	539.8	77.1	1,728.1
Kasabonika	-	320.8	-	-	320.8
Kashechewan	-	1,099.8	204.7	29.2	1,304.5
Lansdowne House	-	962.8	292.4	41.8	1,255.2
Ogoki	-	252.2	49.8	49.8	302.0
Pickle Lake	66.2	1,581.2	437.9	62.5	2,085.3
Pikangikum	-	966.8	537.7	76.8	1,504.5
Round Lake	-	522.6	449.3	64.2	971.9
Sandy Lake	321.8	412.6	613.7	87.7	1,348.1
Sachigo Lake	-	1,327.6	23.0	11.5	1,350.6
Webequie	-	1,562.7	164.4	82.2	1,727.1
Winisk	82.9	34.8	1,074.8	153.5	1,192.5

Source: Reference [15]

¹Average for operating period; not all airports were operating for the full 7-year period 1973/74 to 1980/81. No maintenance costs are shown for Armstrong.

The airport and seaplane facilities of collection and distribution centres are undoubtedly the key element in the current tourism air transport pattern for northern Ontario. Here are the nodal points towards which the tourists travelling solely by air move using scheduled Class 2 and 3 services. More importantly, these are the centres to which the automobile travelling sportsman currently moves to obtain charter services to fly-in camps.

From the standpoint of tourism, it is important to note that the system now in place was developed to meet the needs of remote fly-in sportcamps essentially to the south of the 7th and 11th baselines and the Albany River and is now in a position of considerable uncertainty. The areas within about a 150-kilometer radius of the focal points that the system was designed to serve are becoming increasingly accessible to automobiles and camper trucks due to new and improved highway construction and in particular to forest and mining access roads that are open to the public. In effect, the wilderness supply foundations of the remote fly-in sportcamps are under attack and may crumble in large part. Moreover, the charter air service pattern will obviously be affected as sportcamp development opportunities in more northerly locations are exploited. Finally, if new roads are opened, or existing ones extended northward, the tendency to locate the collection and distribution float plane and airstrip bases at, or as close as possible to, terminal points to reduce expensive air transport costs will exert an effect. For example, some operators are considering moving from their Dona Lake base in the Pickle Lake area to a lake about 80 kilometers north on the Pickle Lake Northerly Road. If a road were built to Fort Hope, charter services would perhaps develop here on a modest scale as they did in areas to the south. Southern operators may move north to fill the demand or native-owned and -operated facilities may be developed. Finally, there could be a movement away from float plane services at outpost camps and towards the construction of gravel strips as wheeled aircraft are more economical to operate. At Kapiskau goose hunting camp on the James Bay coastline to the south of Attawapiskat, the development of a gravel strip on the estuary flats has been under discussion for some time. Gravel strips at Hannah Bay and Tidewater goose hunting camps on the coast of James Bay to the east of Moosonee would improve operational efficiency and considerably reduce logistical costs.

In summary, it appears that the gateway facility pattern will persist and increase in importance with any growth in the international and long-distance North American air travel market. The current central collection and distribution facility component of the network will remain intact in the immediate future. However, it has likely reached its zenith, and shifts in pattern with the outright decline of some centres are highly possible as the supply foundations of the sportcamps in southern parts of Ontario North of 50° are eroded, particularly by road access. The remote communities North of 50° now have the required land strips and sea plane bases to support extensive tourism development. Locally based concentrations of charter planes, possibly but not necessarily native-owned and operated, are likely to develop at some points. Some remote camps are likely to introduce gravel landing strips and this could become quite widespread in less than a decade.

As regards remote community airstrips and seaplane bases, the transport infrastructure for tourism development in Ontario North of 50° is in the formative stages with the ultimate pattern dependent on the timing, scale and type of tourism industry that emerges. With the exception of Cat Lake, Kingfisher Lake, Poplar Hill, Summer Beaver and Wunnummin Lake, ground strips are now in place at all larger isolated native settlements. Moreover, there will undoubtedly be a steady improvement in navigational and service facilities as traffic mounts, particularly if tourism develops on a substantial scale.

For some types of tourism, the present infrastructure is adequate and awaits full exploitation. Operators of guided wilderness package tours involving canoe or snowmobile trips that start from the remote settlements could bring guests to the community landing strips using scheduled Class 2 or 3 air services, or chartered services from connector and distributor airports to the south or from road-head points. Landscape tours involving a series of remote community visits, perhaps with local water and ground tours, could be similarly handled. For some hunting and fishing sportcamp operations within water travel distance of the communities, such as Bug River fishing camp from Big Trout Lake, the goose camps from Fort Severn, or the Winisk River wilderness camps from Webequie, the strips represent the final air travel destination.

Some hunting and fishing camps situated a considerable distance from the remote settlements must be accessed from the settlements by air. Moreover, there are likely to be considerably more in the future, possibly all native-owned and -operated. At key points such as Big Trout Lake or Sandy Lake, there is a strong possibility that a local concentration of charter planes will develop.

GROUND TRANSPORT

This wide-ranging aspect of the transport infrastructure for tourism in Ontario North of 50° includes highways, roads, winter roads, snowmobile trails and railways.

HIGHWAYS

A cautionary note is necessary at the outset. The vehicle transport network is composed of several different types of facilities performing different functions, including the King's, secondary and tertiary highway network of the Ministry of Transportation and Communications (MTC), together with the extensive road system constructed and maintained by the Ministry of Natural Resources (MNR) and to some extent by private companies. This exposition of highway patterns is followed by a detailed examination of various roads under the jurisdiction of MNR and private companies. The nature and functions of both systems must be recognized in tourism planning for Ontario North of 50°.

Classification System of the Ministry of Transportation and Communications

All highways are under the administrative authority of the Ministry of Transportation and Communications, and are classified by that agency as King's, secondary and tertiary (Table 6).

The King's and secondary highways are planned, constructed and maintained by the Ministry of Transportation and Communications. In northern Ontario, however, meetings are held three or four times a year with officials of the Ministry of Northern Affairs (MNA) to discuss transportation priorities. In this manner an overall social and economic perspective and political dimension are added to the program of MTC.

Tertiary highways, such as No. 808 northward from Pickle Lake to its junction with the Windigo Road, are physically planned and maintained by MTC. Policy and priority planning and final decisions to proceed with maintenance and improvements rest with the Northern Ontario Resources Transportation Committee (NORTC) which funds the work through an annual journal entry transfer payment to MTC.

There are no plans by MTC or NORTC for the construction of new tertiary highways in Ontario North of 50°. Tertiary Highway 808 north of Central Patricia may be downgraded shortly to a non-status road maintained by NORTC.

TABLE 6

HIGHWAY CLASSIFICATION SYSTEM OF THE MINISTRY OF
TRANSPORTATION AND COMMUNICATIONS

King's Highways - Numbered 199 or lower

- Main inter-regional and inter-provincial travelways
- Planned, constructed and maintained by MTC but in northern Ontario with discussion of priorities with the Ministry of Northern Affairs on the basis of three or four meetings a year
- Only three King's highways are within or penetrate Ontario North of 50°, including:
 - # 72 - Dinorwic/Sioux Lookout
 - #105 - Red Lake Highway
 - #125 - Red Lake/Cochénour

The Detour Lake Road will probably be in this category.

Secondary Highways - Numbered 500 to 699

- Major feeders to the King's highways
- Planned, constructed and maintained by MTC with input from MNA as for King's highways
- There are several secondary highways that penetrate, or are wholly within, Ontario North of 50° including:
 - #527 - Thunder Bay to Armstrong
 - #584 - Geraldton to Nakina
 - #596 - Kenora/Minaki/Whitedog
 - #599 - Ignace to Pickle Lake and Otoskwin River
 - #618 - Red Lake to Starrat Mine
 - #642 - Sioux Lookout to Silver Dollar
 - #643 - Nakina to Aroland

Tertiary Highways - Numbered in 800's

- Designated as public roads under Part 6 of the Highways Act
 - Engineering, planning, construction and maintenance by MTC with policy and priority planning by the Northern Ontario Resources Transportation Committee (NORTC); funds for construction and maintenance transferred from NORTC to MTC by a journal entry
 - Only two tertiary roads are found in Ontario North of 50°:
 - #804 - Ear Falls to power site at Lower Manitou Falls
 - #808 - Pickle Lake to Windigo Road
-

A Functional Classification and Historical Perspectives

Approach

While it is useful for tourism interests to become familiar with the foregoing administrative functional classification in order to facilitate discussions with MTC and NORTC, something more incisive is required for tourism planning and development in Ontario North of 50°. To meet these needs the accompanying tourism functional classification has been prepared within a broad geographic frame of reference (Table 7). In addition, highway lengths, functional classifications, annual average daily traffic (AADT) volumes and summer average daily traffic (SADT) volumes are shown for selected stretches or sections considered to have significant implications for tourism planning. The spatial pattern is clearly displayed on the accompanying map of ground transport infrastructure. Each highway is discussed in the text, frequently with important historic annotations added.

A large part of the network mapped and described lies well beyond and to the south of Ontario North of 50°. The intent is simply to provide a necessary general appreciation of the nature of the highway travel arteries and tourist movements on the southern margins of Ontario North of 50° that set the broad limits of market opportunities. Moreover, the network provides some explanatory foundation for the patterns of highways that actually penetrate the study area.

The early history of highways and roads is important for describing and explaining the advance of the frontier and the individual thrust corridors of remote sportcamp development, the major collection and distribution centres for charter air transport to the camps, and the sequential aspects of the establishment of roadside motel/cabin/resort facilities. Therefore, historic information related to highway and road construction is included in the discussion of the individual highways. It is stressed, however, that the discussion is confined to features of significance for tourism that could be fairly readily obtained from central documentary sources. No attempt is made to present a comprehensive historic account of highway development in northern Ontario. No such history has been prepared to date. Moreover, it may be an extremely difficult, time-consuming and, in some cases, almost impossible task to accurately document the early history of some highways or portions of them.

The dates on which the Ministry of Transportation and Communications, or its predecessors, assumed responsibility for any highway are easily determined, as is the history of improvements thereafter. It is the story of a highway prior to that date that is frequently difficult or impossible to ascertain. Many roads were in use by local residents and tourists long before they were taken into the highway system. This is particularly true of main haul logging and timber roads, on the margins or in terminal areas of which a commercial tourism industry developed based on road travel. In the cases of King's Highway 17 from Thunder Bay westward and Highway 11 from

Cochrane westward, completion was to a large extent a matter of linking up local systems of trade and social travel roads developed around populated centres in response to the introduction of automobiles and the efforts of local auto clubs. Moreover, relatively long-distance travel links often developed separately at the eastern and western or northern and southern extremities of routes, as well as in the midsections of routes, leaving short final connecting sections to be finished at a later date.

The initial commentary is restricted to King's, secondary and tertiary highways. Industrial roads, non-status roads and the Local Roads Board Program under the jurisdiction of the Ministry of Transportation and Communications are reviewed immediately following.

From the standpoint of the objectives of this study it is most productive to approach the discussion and functional classification of the provincial highway network within the framework of two major geographic regions that reflect important differences in tourist travel and origin/market patterns. The eastern regional network extends from the general area of Lake Nipigon in the west to the Ontario/Quebec boundary and the western regional network extends westward from Lake Nipigon to the Ontario/Manitoba boundary. The Highway 11 - Highway 17 route between Thunder Bay and Nipigon represents a bridging type of facility.

Eastern Regional Network

In terms of tourism development in the eastern part of Ontario North of 50°, the Eastern Regional Highway Network can be viewed as the basic ground travelway system. It moves anglers and hunters from the populated centres of the lower Great Lakes and the eastern seaboard of North America to collection and distribution centres for charter air services to remote fly-in sportcamps or to staging areas for wilderness canoe adventure travels from the headwater areas of streams leading to tidewater. In essence, the highway network roughly parallels the east to west alignment of the 50° north latitude, and penetrates the southern sections of the study area only via Highway 584 northward from Geraldton to Nakina. For the area immediately to the south of Ontario North of 50°, Highway 11 represents a central or core artery of a landscape tour across northern Ontario, although it is secondary to the Lake Superior route of Highway 17. The system also supports destination vacations at resorts and provincial parks in the immediate vicinity of Highway 11 and nearby road-accessible sportcamp operations. Overall, however, the network is far more important to the area south of 50° than it is to Ontario North of 50°.

King's Highway 11 is a primary stem of Ontario's highway system. It has four main components, Toronto to Cochrane, Cochrane to Geraldton, Geraldton to Nipigon and Thunder Bay, and Thunder Bay to Kenora. Each has a distinct history and function related to the

SURFACE TRANSPORT INFRASTRUCTURE FOR TOURISM

Highways

- King's
- - - Secondary
- ... Tertiary

Railways

- C.N.R. Canadian National
- - - C.P.R. Canadian Pacific
- ... O.N.R. Ontario Northland

Roads

Non-Status

1. Jones
2. Marchington
3. Moosonee Southley
4. Nungesser
5. Windigo (Pickle Lake Northerly)

Winter

- Tractor Trailer
- - - Truck
- ... Snowmobile Trail

Forest Management Subsidiary Agreement

- A East Lake
- B Longlegged Lake
- C Obaga
- D Opek
- E Pikitguish
- F Reddit
- G Vermilion River

- Main Concentration of Forest Access Roads
- ... Resource Extraction (Industrial)

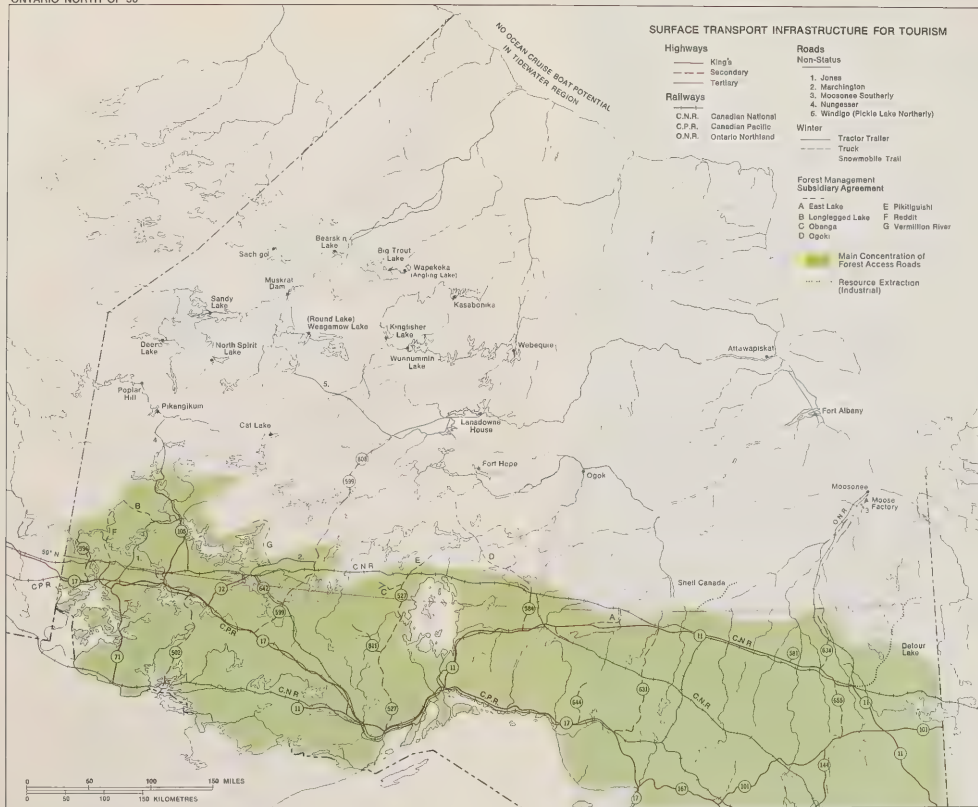


TABLE 7

A FUNCTIONAL CLASSIFICATION OF KING'S, SECONDARY AND TERTIARY HIGHWAYS
RELATIVE TO TOURISM IN ONTARIO NORTH OF 50° TOGETHER WITH TRAFFIC
VOLUME INFORMATION

Networks, Functional Classes and Individual MTC Highways	Traffic Volume 1980			
	Class ¹	AADT ²	SADT ³	DIFF ⁴
I <u>Eastern Regional Network</u> (East Lake Nipigon to Ontario/Quebec boundary)				
A. <u>Primary South to North Regional Access Routes</u> (Carry long-distance tourist traffic to the area immediately south of Ontario North of 50°)				
1. <u>King's Highway 11</u> Toronto-Cochrane (710 km)	IT	1850	2250	400
1(a). <u>Secondary Highway 655 -</u> <u>Timmins-Cochrane Alternate (75km)</u>	SC	550	590	40
2. <u>King's Highway 11</u> Nipigon-Jellicoe (104 km)	IC	1200	1450	250
3. <u>King's Highways 129 & 107</u> Sault Ste. Marie-Timmins (515 km)	LT LT	300 525	480 840	180 315
4. <u>King's Highway 144</u> Sudbury-Timmins (295 km)	LT	650	1050	400
5. <u>King's Highway 631</u> White River-Highway 11 (172 km)	LT	200	320	120
B. <u>Primary East/West Travel Distribution Artery</u> (Carries traffic across the area south of Ontario North of 50° or to collection and distribution points for air or water travel North of 50°)				
1. <u>King's Highway 11</u> Cochrane-Jellicoe (516 km)	IT CTR	1700 900	2050 1300	350 400

TABLE 7 Continued

Networks, Functional Classes and Individual MTC Highways	Traffic Volume 1980			
	Class ¹	AADT ²	SADT ³	DIFF ⁴
C. <u>Northerly Penetration Routes</u> (Carry tourists north of Highway 11)				
1. <u>Detour Lake Road</u> Secondary Highway 652 to Detour Lake (158 km) - Under Construction		Not Yet Open		
2. <u>Secondary Highway 579</u> Cochrane-ONR (35 km)	IC	300	360	60
3. <u>Secondary Highway 634</u> Smooth Rock Falls-Fraserdale (73 km)	SC	300	320	20
4. <u>Secondary Highway 581</u> Moonbeam-Remi Lake Provincial Park (6 km)	LT	900	1450	550
5. <u>Secondary Highway 663</u> Highway 11-Calstock (6 km)	SC	350	380	30
6. <u>Secondary Highway 584</u> Geraldton-Nakina (66 km)	HR	650	1350	700
6(a). <u>Secondary Highway 643</u> Highway 584 - Aroland (19 km)	HR	150	310	160
II <u>Western Regional Network</u> (West Lake Nipigon to Ontario/Manitoba boundary)				
A. <u>Primary East/West Distributor Highway</u> (Carries tourists into and across the region immediately south of 50° North to northern access highways and roads)				
1. <u>King's Highway 17</u> Nipigon-Thunder Bay-Manitoba boundary (640 km)	LT	3100	4950	1805
	LT	1700	2700	1000
	T	2150	4150	2000
	T	3000	5800	2800

TABLE 7 Continued

Networks, Functional Classes and Individual MTC Highways	Traffic Volume 1980			
	Class ¹	AADT ²	SADT ³	DIFF ⁴
B. <u>South/North Feeder Highways</u> (Carry tourists into or close to the south margins of Ontario North of 50°)				
1. <u>King's Highway 61</u> Pigeon River-Thunder Bay (41 km)	TR	1450	2100	650
2. <u>King's Highway 71</u> Barwick-Longbow Corners (157 km)	HT	1000	2150	1150
3. <u>Secondary Highway 502</u> Highway 11-Dryden (283 km)				
C. <u>Northerly Penetration Routes</u> (Carry tourists into or close to the south margins of Ontario North of 50°)				
1. <u>Secondary Highway 596</u> Kenora - Whitedog (81 km)	IC	500	610	110
2. <u>Secondary Highway 666</u> Kenora - Redditt (31 km)	C	230	230	-
3. <u>Secondary Highway 647</u> Vermilion Bay - Blue Lake Provincial Park (8 km)	HT	350	750	400
4. <u>King's Highway 105</u> Vermilion Bay - Red Lake (169 km)	IC	900	980	80
	SC	675	730	55
4(a). <u>King's Highway 125</u> Highway 105-Cochénour (13 km)	VC	1150	1200	50
4(b). <u>Secondary Highway 618</u> Red Lake-Starratt Olsen Mine (15 km)	IC	350	420	70
4(c). <u>Secondary Highway 657</u> Ear Falls-Gold Pines (6 km)	SC	400	430	30
4(d). <u>Tertiary Highway 804</u> Ear Falls-Lower Manitou Falls (21 km)				
4(e). <u>Secondary Highway 609</u> Highway 105-Clay Lake (15 km)	IC	125	150	25

TABLE 7 Continued

Networks, Functional Classes and Individual MTC Highways	Traffic Volume 1980			
	Class ¹	AADT ²	SADT ³	DIFF ⁴
5. <u>Kings Highway 72</u> Dinorwic-Sioux Lookout (69 km)	LT	400	640	240
5(a). <u>Secondary Highway 664</u> Patricia Corners - Hudson (17 km)	UC	600	630	30
6. <u>Secondary Highway 642</u> Sioux Lookout - Silver Dollar (Links Hwy 72 & 559) (78 km)	SC	150	160	10
7. <u>Secondary Highway 599</u> Ignace-Central Patricia (298 km)	IT	275	400	125
7(a). <u>Secondary Highway 646</u> Central Patricia-Pickle Lake (8 km)	SC	750	810	60
7(b). <u>Tertiary Highway 808</u> Central Patricia- junction with Pickle Lake Northerly (59 km)				
8. <u>Secondary Highway 527</u> Highway 11/17-Armstrong (242 km)	LT	100	160	60

Source: Reference [27]. No traffic volume information is given in this report for tertiary highways.

¹Highway sections were classed functionally by MTC as follows with only those classes marked with an asterisk appearing in the table above:

**Displaying Low Variation in Traffic Volume Flow Between Seasons -
Commuter Highways**

- * UC - Urban Commuter
- * SC - Suburban Commuter
- * C - Commuter

Displaying Intermediate Variation in Traffic Volume Flow Between Seasons - A Blend of Several Types of Traffic is Characteristic

- * IC - Intermediate Commuter
- CR - Commuter Recreation
- IR - Intermediate Recreation
- *CTR - Commuter/Tourist/Recreation
- * IT - Intermediate Tourist

Displaying High Variation in Traffic Volume Flow Between Seasons - Due Mainly to Tourism

- * LT - Low Tourist
- * T - Tourist
- * HT - High Tourist

Displaying High Variation in Traffic Volume Flow Between Seasons - Due Mainly to Recreation

- LR - Low Recreation
- R - Recreation
- * HR - High Recreation

²AADT - Average Annual Daily Traffic, which is defined as the average 24-hour, two-way traffic volume from January 1 to December 31.

³SADT - Summer Average Daily Traffic, which is defined as the average 24-hour two-way traffic volume from July 1 to August 31.

⁴DIFF - Represents the difference between the AADT and the SADT. Not all of the DIFF shown in the table can automatically be attributed to tourism, even in the case of roads classed as LT, T or HT. Some portion often represents increased local resident recreation travel and increased general economic activity in the area.

development of tourism in Ontario North of 50°. In this discussion of the Eastern Regional Network in northern Ontario, Highway 11 and the highway network to its south are described first. The description then turns to the secondary highways extending to its north.

The south-to-north Toronto to Cochrane component (710 km) feeds traffic to the eastern gateway approach to Ontario North of 50° and to the Polar Bear Express.

The southern sections of the route between Toronto and Lake Simcoe were built in the early years of Upper Canada. Under timber harvesting and settlement programs the road reached North Bay and extended westward through Sudbury to Sault Ste. Marie. In 1923, the Ninth Annual Road Tour of the Michigan Pikes Association Inc. and the Detroit Automobile Club encompassed a 2700 kilometer (1700 mile) "Champlain Trail Tour" from Detroit across southern Ontario to Ottawa, up the Ottawa Valley to North Bay, thence to Sault Ste. Marie and south through Michigan to the starting point at Detroit. The entire trip was completed in 21 days in July [20].

The portion of the route from North Bay to Cochrane (375 km) known as the Ferguson Highway was completed in 1927. It would be interesting to know the extent of private investment in the tourism sector at this early date. It would appear that angling and hunting sportcamps did not emerge until the 1940's in the vicinity of Cochrane but historic research may press this date backward considerably.

King's Highway 11 in a 6.9-km stretch between Porquiss Junction and the Nellie Lake Road was classed in 1980 as an Intermediate Tourist route having an Average Annual Daily Traffic (AADT) count of 1850 vehicles, a Summer Average Daily Traffic (SADT) count of 2250 and a comparable winter season count of 1550 [27]. In the period July 1 to August 31, encompassing the SADT, traffic volume exceeds the AADT by about 400 with the increase representing both tourist vehicles and local recreation travel.

Some tourist traffic in the area moving along Highways 144 and 101, or diverting from Highway 11 to visit Timmins before going on to Cochrane or Smooth Rock Falls and points on Highway 17 to the west, may use Secondary Highway 655. If the comparable estimate of 30, observed for Secondary Highway 655, is added to the 400 previously noted for Highway 11, a total of 430 is obtained. This is a fairly modest volume movement that is far below a comparable figure of 1900 for Highway 17 between Wawa and White River.

The south to north-northeast Nipigon to Geraldton component (160 km) was completed in the 1930's. By 1930, Highways 17 and 11 linked Thunder Bay to Nipigon. In 1936-37, Highway 11 was extended to Orient Bay and by 1941 Nipigon was linked to Geraldton. A sportsman or tourist then could move from Minneapolis and Duluth to the area to the west of Lake Nipigon by highway.

In 1980, the 46.1-km section of the highway between Nipigon and Orient Bay was classed as Intermediate Commuter [27]. The AADT count was 1200 and the SADT 1450. The difference of 250 represents both tourist travel and local commuter traffic, and apparently contains a reasonably high percentage of the latter.

The Cochrane to Geraldton component representing the through travelway corridor and distribution stem of King's Highway 11 was completed in stages and sections between 1927 and 1947. As early as 1928,

a 16-km section westward from Hearst to the junction of the CNR and the Algoma Central Railway was finished. In that year construction east from Kapuskasing and westward from Cochrane also was underway. By 1930 there was a continuous highway from Cochrane through Kapuskasing to Opasatika. Between 1935 and 1936 the road was made continuous from Cochrane westward through Hearst to Pennault Falls. The gap between Geraldton and Hearst was finally closed in 1947. Interestingly, this was 15 years before a through route between North Bay and Thunder Bay was opened in 1961 via Highway 17. During this period Highway 11 enjoyed a monopoly position in an all-Canada trans-northern Ontario landscape tour by automobile.

In the 20-year period from 1927 to 1947, when the central through-way sections of Highway 11 were under construction, there was considerable investment in roadside cabin and early motel-type accommodation to meet the needs of the motorist travelling for business or pleasure, particularly for angling and moose hunting in adjacent lake and river areas. Gradually the camps were extended to remote areas using logging roads and fly-in operations. Probably little if any of the highway tourism development of this period extended into Ontario North of 50°.

Tourist traffic on this component of Highway 11 is modest, in a comparative provincial perspective, as indicated by the following data for 1980 [27]. The 31-km stretch between Opasatika and Mattice, classed as an Intermediate Tourist travelway, displayed an AADT of 1700 and an SADT volume of 2050. The difference of 350 represented both tourist traffic and increased local resident recreation and landscape touring activity. In the 38.8-km section from Highway 663 to Calstock and Highway 631 to Hornepayne, classed as a Commuter/Tourist/Recreation travelway, the AADT was 900 and the SADT 1300. The 400 increase in the summer season represented tourist and, to a considerable degree, local recreation traffic. At no point is the traffic flow on this highway at any season of the year classed as Tourist or High Tourist. Differences of 350 to 400 between the AADT and the SADT, possibly no more than 70 per cent of which could be claimed to represent tourists coming from outside the local area, are characteristic.

Although the entire section of King's Highway 17 from North Bay to Nipigon cannot be regarded as a major route leading tourists towards Ontario North of 50°, a brief summary of its historic evolution is of interest. The section from Sault Ste. Marie northward to White River to connect with Highway 631 leading through Hornepayne to Highway 11 is, however, of some significance.

As previously noted, Highway 17 between North Bay and Sault Ste. Marie was open as early as 1923 and perhaps a year or two earlier. The connection to Fort William was made by rail, steamboat or travel through the USA by highways and roads. In 1927, construction on present Highway 17 was completed to about 32 km west of Sault Ste. Marie. Construction also proceeded eastward from Nipigon so that by 1942 only a gap between Wawa and Schreiber remained. Over a 10-year period this was steadily closed by construction under the federal/

provincial Trans-Canada Highway Program, so that by the summer of 1961 a second all-Canadian through route from North Bay to the Manitoba border was available to the motorist.

In 1980, the 91.5-km stretch of Highway 17 between Wawa and White River, classed as High Tourist, displayed an AADT of 3600 and an SADT of 5500 [27]. The difference of 1900 in the average daily count can be considered to be largely tourist traffic because this section of Highway 17 passes through a lightly populated area. No comparable summer volume totals attributable to tourist travel traffic are experienced along Highway 11.

Secondary Highway 631, running from Highway 17 at White River through Hornepayne to Highway 11, moves tourist traffic primarily to sportcamps in the intervening area and possibly a modest number of landscape tourists and American hunters and anglers towards camps and charter plane services in the vicinity of Hearst. No precise information was obtained for this study regarding the significance of this routeway.

Highway 631 is classed as a Low Tourist travel route [27]. In 1980 the AADT flow over any segment sampled was as low as 200 and the SADT only 320. With the difference of 120 being made up of both tourist travel and increased summer local resident outdoor activity, it is likely that no more than 70 or 80 out-of-region tourists moved along the route in an average day. With many destined for resorts in the vicinity of Highway 631 itself, it is clear that Secondary Highway 631 has modest significance for tourism along Highway 11 or in Ontario North of 50°.

Secondary Highway 655 between Timmins and Highway 11 midway between Smooth Rock Falls and Cochrane is essentially an alternate or by-pass route. This highway is classed as Suburban Commuter. On the 47.1-km section south of the junction with Highway 11 it showed an AADT of 590 and an SADT of 620 in 1980 [27]. If the modest increase of 30 between the AADT and the SADT for this highway is combined with the comparable figure of 400 for Highway 11 an overall total of 430 is obtained as noted previously.

King's Highways 129 and 101, taken in combination, represent a northward artery of modest significance from Sault Ste. Marie through Chapleau and Foleyet to Timmins and the southern approaches to the eastern part of Ontario North of 50°. Highway 129 is considered a Low Tourist travelway. In the 5.7-km stretch between Five Mile Lake Provincial Park and Secondary Highway 667 to the north, the AADT traffic volume in 1980 was 300 and the SADT flow 480 [27]. Only an average of 180 vehicles travelling for all purposes, including tourism and local recreation, pass daily in both directions along this short part of the highway in the immediate vicinity of a provincial park. In the 20.1-km section of Highway 101 between Secondary Highway 616 (Palomar Rd) and the Foleyet Rd, classed as a Light Tourist route, the AADT in 1980 was 525 and the SADT 840. The difference of 315 vehicles

that is made up of tourists and increased summer local recreation traffic is only moderately high considering that Ivanhoe Provincial Park is in the immediate vicinity.

King's Highway 144 running from Sudbury to King's Highway 101 about 15 km southeast of Timmins is classed as Low Tourist in its section northward from Secondary Highway 661 (Gogama Road) to the Junction with King's Highway 101. In the final 12.2-km section between the Temiskaming/Cochrane District boundary and Highway 101, the AADT count in 1980 was 650 and the SADT 1050 [27]. The difference of 400 represents both tourist and increased local resident summer recreation travel. The latter is quite high in the vicinity of Timmins, with a population of over 45,000, and markedly depresses the percentage that could be reasonably attributed to tourism.

A number of secondary highways, most quite short in length, carry tourist and recreation traffic north of the east/west through travelway corridor component of King's Highway 11. Some that connect with Forest Management Agreement roads permit wheeled vehicle penetration a considerable distance into Ontario North of 50°. Some, like No. 581 leading from Moonbeam on Highway 11 northward to Remi Lake Provincial Park, are of no importance for tourism in Ontario North of 50°, now or in the foreseeable future.

It is useful to note that the annual average and summer average daily traffic statistics shown in the table, and noted in the commentary on individual highways, represent two-way traffic movement. Secondary highways leading northward from King's Highway 11 are dead-end roads, and hence counts must be divided in half to estimate the individual tourist and recreation volumes involved. In effect, traffic that moves northward must also move southward out of the area insofar as tourist vehicles are concerned.

The *Detour Lake Road*, financed by the Ministry of Northern Affairs and the Forest Service of Environment Canada and now under construction, extends northerly from Secondary Highway 652 at a point 17.7 km east of Cochrane, for 158 km to Detour Lake. When completed this will probably become a provincial highway. Since a separate report has been prepared by the Royal Commission on the Northern Environment dealing with this road and its impact, comment will be limited [33].

The highway will have a serious detrimental impact on remote fly-in sportcamp development in its immediate vicinity. Since the road is likely to assume provincial highway status, controlled access does not appear feasible. It is unlikely that it will generate other kinds of commercial tourism development opportunities because, from both climate and market standpoints, multi-activity resort complex development is not feasible. Roadside commercial cabin rental facilities are not likely to be built. A rapid decline of quality angling and hunting due to heavy local and regional resident use can be anticipated. Pressure will probably be exercised to obtain remote cottage sites and perhaps small subdivisions at a few points.

Secondary Highway 579, extending 35 km north of Cochrane to a point on the Ontario Northland Railway, is of limited tourist significance. In the 15.5-km section between Cochrane and Clute, classed as Intermediate Commuter, the AADT volume in 1980 of 300 increased by only 60 to give an SADT count of 360 [27]. The route is probably used mainly for local fishing and hunting activities.

Secondary Highway 634, extending 73 km northward from Smooth Rock Falls to the power development at Fraserdale, was opened in 1966. The route is classed as Suburban Commuter. In 1980 the AADT was 300 vehicles and the comparable value for the summer months 320. Clearly, the highway carries limited tourist traffic.

Secondary Highway 581, leading northward from King's Highway 11 at Moonbeam to Remi Lake Provincial Park, is classed only as Light Tourist. In 1980 the AADT count was 900 and the SADT count 1450 [27]. The difference of 550 represents both tourists and local residents on day visits and camping trips to the park. This tends to confirm only modest non-regional tourist traffic on Highway 11, as noted elsewhere in this section of the report.

Secondary Highway 663, running 10 km north of King's Highway 11 to the ground strip and seaplane base of Hearst Air Services Ltd. at Calstock, is classed as Suburban Commuter. The AADT count in 1980 was 350 and the comparable count for the summer season 380 [27].

Secondary Highway 584, extending for 66 km north of Geraldton to Nakina, involved the linking up of "bits of mining and lumber roads" in 1956. Responsibility for the highway was assumed in stages by the Ministry of Transportation and Communications in 1957 and 1959, the through route being completed about 1958. The lower kilometer of this highway from King's Highway 11 to the Hardrock Mine entrance road is classed as Light Tourist, suggesting its use by tourist traffic moving about in the general vicinity of Geraldton. The main 55-km section from the northern limits of Geraldton to Secondary Highway 643 running to Aroland is classed as High Recreation. This and its spur, Highway 643, are the sole Eastern Regional Network elements under discussion to hold this designation. In 1980, the AADT count was 650 and the SADT 1350 [27]. A percentage of the difference of 700 will be accounted for by local Geraldton resident travel, but since the population of that centre was only about 3200, it is probable that tourist traffic is significant. All anglers and hunters moving to Cordingley Lake for transport to remote fly-in sport camps travel this route.

Secondary Highway 643, running northwesterly from Secondary Highway 584 for 19 km through Aroland and just beyond, is also classed High Recreation. It is really a spur of the Geraldton/Nakina link as previously noted. Having a direct connection with Kimberly-Clark's Forest Management Area road now under construction, this could become a very significant circular tourist and hunter/fisherman travelway. If the Forest Management Subsidiary Agreement road now built to the Ogoki River and beyond is finally pushed north to Fort Hope, a critical major

access route into the central portion of Ontario North of 50° beyond the Albany River will have been established. Probably Fort Hope would then become a major air tourist collection and distribution centre commanding a substantial section of terrain in the central part of Ontario North of 50°. In 1980, the AADT Count for this highway was 150 and the comparable summer traffic volume 310 [27]. With a large percentage of the difference of 160 in the average daily flow being recreation and tourist travel, Highway 643 was classed as High Recreation. A considerable percentage of the 160 seasonal increase in traffic represents local traffic between Nakina and Aroland. Most of the increased summer traffic (700 vehicles daily) moving on Secondary Highway 584 appears destined for Nakina with only a small number of vehicles diverting to Aroland.

Summary comment on traffic volume data for the Eastern Regional Network presented in Table 7 is desirable at this point. The increase in 1980 between the AADT count and the SADT statistics for King's Highway 11 was 350 to 400 between Cochrane and Jellicoe, 440 in the eastern south-to-north feeder arterial section focused on Cochrane, and as low as 250 in the western feeder section leading from Nipigon to Jellicoe. As noted earlier, the comparable figure in 1980 for Highway 17, the southern route of the Trans-Canada Highway in the Wawa to White River section, classed as High Tourist, was 1900. Increased traffic volume in the summer months for secondary highways leading north of King's Highway 11 is limited, particularly considering that the statistics in the table must be divided by two to estimate individual vehicle parties and that a high percentage of the value must represent increased local resident summer vacation and weekend recreation travel.

From the standpoint of tourism operations and future development in Ontario North of 50°, Secondary Highway 584 from Geraldton to Nakina and its northwesterly spur to Aroland, represented by Secondary Highway 643, constitute the only significant artery. Even in this case, the increase between the AADT and the SADT is only 700 vehicles. This probably involves only 350 individual parties, a good proportion of which represent local residents in summer recreation travel. With the connection to the Fort Hope road now under construction, tourist and recreation traffic on this artery can be expected to increase sharply. As noted, if the road is extended to Fort Hope, a major tourism development thrust into the central portion of Ontario North of 50° will ensue. Attendant changes in the logistics of air transport, that is the air charter collector and distribution system, are almost certain in this part of the study area.

Western Regional Network

The Western Regional Network is fairly straightforward, as can be readily ascertained from the map and the accompanying table. King's Highway 17 from Nipigon-Thunder Bay westward through Ignace, Dryden and Kenora to the Manitoba boundary is the primary east-west distributor

stem to the south of Ontario North of 50°. Three major highways lead American traffic northward including King's Highway 71 connecting with USA 71 coming from Duluth and Secondary Highway 502 from Fort Frances. Three major routeways thrust into Ontario North of 50°, namely King's Highway 105 to Red Lake, King's Highway 72 to Sioux Lookout, and Secondary Highway 599 and its connection with Tertiary Highway 808 that in turn is linked to the Pickle Lake Northerly Road. The latter route extending northward from Ignace for 357 km represents the deepest penetration of the provincial highway system in Ontario North of 50°, approximately 295 km.

Highway 17, as the major tourist travel artery of northern Ontario, has had a long and fascinating history. Construction west of Thunder Bay to the Manitoba boundary commenced about 1913 and continued under the Northern Development Roads Program. Series of separate road sections built around population centres (Thunder Bay, Kenora, Dryden and Fort Frances) were linked and opened as a through provincial highway in 1932.

In 1913-14 the section from Kenora to Keewatin was built, and the road was pushed to Pallet by 1920. The road was opened between Fort William and Kakabeka Falls, a major tourist attraction, between 1913 and 1922. The section from Ignace to Ossaquia was built in 1922 and 1923. The Dryden to Wabigoon portion was constructed in 1920, the connection between Kenora and Dryden in 1925, and the 21 kilometers between Dinorwic and Dymont in 1927. In 1937, MTC assumed responsibility for King's Highway 17 westerly from Thunder Bay.

Highway 17 was constructed eastward from Thunder Bay to Nipigon in 1927, where it stalled until the gap was closed with Sault Ste. Marie in 1960 under the federal/provincial Trans-Canada Highway Program, as noted earlier.

Tourist traffic began to move into this east-west artery at an early date. Manitobans travelled eastward to the cottage and resort centres of Kenora, turning the train travel pattern of an earlier era into a mass automobile movement. Americans penetrated northward from Duluth at a very early date and also entered along King's Highway 71 from International Falls and Baudette.

Over its entire 637 kilometers from Nipigon to the Ontario/Manitoba border, sections of the King's Highway 17 were classified in a variety of categories in 1980 [27]. Tourism, however, is prominent throughout. The section of combined King's Highways 17 and 11 from Nipigon through Thunder Bay to Shabaqua Corners, about 35 km west of the lakehead, is classed as High Tourist outside the main urban areas. The 16.1-km section between Secondary Highway 628 (Red Rock Road) and Secondary Highway 582 (Hurkett Road) provides an indication of the situation east of Thunder Bay to the approaches to Nipigon. In 1980 the route was classed as Low Tourist. The AADT count was 3100 and the SADT volume 4950. The 1850 difference is substantial and far greater than comparable statistics for Highway 11. Apparently, however, this is made up largely of increased summer traffic of a non-tourist type.

The 58.5-km section between Secondary Highway 599 to Pickle Lake and Borups Corners about 21 km east of King's Highway 72 leading to Sioux Lookout also is classed as Low Tourist. In 1980, the AADT here was 1700 and the SADT 2700, the difference of 1000 being attributable largely to increased summer recreation travel by Dryden residents (population 6600) and tourist traffic. The 71.8-km section between Secondary Highway 647 (Vermilion Bay Road) and Highway 71 at Long Bow Corners was classed as Tourist in 1980. The AADT was 2150 and the SADT 4150. In this resort area the difference of 2000 is largely tourist traffic. The 42.3-km section from Secondary Highway 641 just west of Kenora-Keewatin to the Manitoba boundary is also classed as Tourist. The AADT was 3000 in 1980 and the SADT 5800, giving a difference of 2800 that can be attributed to both increased local summer recreation travel and tourist movement. The latter is very strong in this area.

It is important to stress that only a small percentage of the tourist vehicle traffic of the Western Regional Network noted in the foregoing statistics penetrates Ontario North of 50°. This will become apparent in the subsequent discussion of the associated feeder highways.

King's Highway 61, from the International Bridge at Pigeon River to Thunder Bay about 41 km to the northeast, was open to traffic prior to the First World War. The route links with US 61 leading directly to Duluth. In 1980 this highway was classed as Commuter/Tourist/Recreation [27]. In that year, the 33-km section from Secondary Highway 593 to Secondary Highway 608 showed an AADT of 1450 and an SADT of 2100. The increase of 650 in the summer season average daily count is not particularly large from a tourism standpoint, considering the division between travel purposes implied by the CTR class.

King's Highway 71, about 157 km in length and running between King's Highway 11 just east of Barwick on the USA border and King's Highway 17 at Long Bow Corners about 19 km east of Kenora, was classed as High Tourist in 1980. In the 56.3-km section between Sioux Narrows Bridge and Long Bow Corners, the AADT was 1000 and the SADT 2150. In the section to the south of Sioux Narrows running towards Nestor Falls the SADT reached 2550. Much of this visitor traffic is probably commuting from cottage resort areas toward Kenora for shopping and entertainment. The highway, however, is an important feeder route to Highway 17 for American traffic moving through International Falls and points to the north, some probably in Ontario North of 50°.

Secondary Highway 502, running northward to Dryden from a point on King's Highway 11 about 32 km east of Fort Frances-International Falls, provides Americans crossing into Canada with the most direct route to Red Lake or Sioux Lookout. No data are given for this highway in the 1980 traffic volume report of the Ministry of Transportation and Communications [27].

It is noted that tourists moving along the aforementioned three feeder highways to King's Highway 17 are probably destined mainly for specific locations or landscape tourist routes to the south of Ontario North of 50°. However, the statistics provide an indication of the outer magnitude or limits of the tourist traffic moving about the region of northwestern Ontario south of 50° that might be tapped. They provide a basis for roughly estimating the overall attraction of the study area for this group, as revealed by comparison with volume totals on routes leading north of King's Highway 17.

There are a number of northerly routes from King's Highway 17 that penetrate for substantial distances into Ontario North of 50°. A few that extend just to or only slightly into the area are also discussed. The pattern is much more intense and significant for tourism planning and development in Ontario North of 50° than was the case with the Eastern Regional Network.

Secondary Highway 596, running for 121 km north of Highway 17 at Kenora to Whitedog with a 6-km spur, 596A, leading to Minaki, is classed as an Intermediate Commuter route [27]. Prior to its assumption in 1976 by the Ministry of Transportation and Communications, it was a northern resources road of MNR known as the Minaki/Caribou Dam Road. In the 31.1-km section from the junction with Highway 641 to Highway 596A leading to Minaki, the AADT flow for 1980 was 500 and the SADT 610. About 40 per cent of the traffic in both cases was moving to and from Whitedog or the Islington Indian Reserve. Tourist traffic should increase on this route with the reopening of Minaki Lodge.

Secondary Highway 666, covering 31 km from Kenora to Redditt, is classed as Commuter [27]. In the final 13.6 km from Secondary Highway 659 (Coker Road) to the CNR Station at Redditt, the AADT in 1980 was 230 as was the SADT. Currently this highway is not significant for tourism. With the construction of the Minaki Crown land forest access road to the northern end of Sydney Lake it can be expected that tourist and local resident outdoor recreation travel will increase sharply, assuming public access to the road.

Secondary Highway 647, a short 8.4-km route from King's Highway 17 at Vermilion Bay to Blue Lake Provincial Park, is classed as High Tourist [27]. The AADT in 1980 was 350 and the SADT 750. In the summer increase of 400 vehicles per day, tourists moving along Highway 17 are undoubtedly highly represented. Local resident camping and day use in the provincial park, however, will be an important factor. Considering this aspect and the fact that the 400 value must be divided by two to estimate individual tourist parties, it seems that the strength of tourist traffic lingering for a short time in the vicinity of the junction of King's Highways 105 and 17 is not exceptionally large.

King's Highway 105, stretching 175 km from Vermilion Bay to Red Lake and passable for its entire length in 1946, was officially opened by the Hon. George Drew in 1947. Actually it was not officially

assumed by MTC until 1950. From Vermilion Bay to Ear Falls the route is classed as Intermediate Commuter and from Ear Falls to Red Lake as Suburban Commuter, both classifications indicating only modest tourist impact on the overall traffic flow patterns [27]. In the 64.7-km section between Secondary Highway 609 (Quibell Road) and the Onway/Lac Seul Road about a kilometer south of Ear Falls, the AADT is 800 and the SADT 930. In the 68.6-km stretch between Secondary Highway 657 (Gold Pines Road) and King's Highway 125 (Balmertown Road), the AADT in 1980 was 675 and the SADT 730. Both measurements suggest modest daily tourist traffic flow at most.

Several spurs or extension highways from King's Highway 105 require note. *King's Highway 125* running for 13 km through Balmertown to Cochenour dock was assumed by MTC in 1955, although a road connection was present since the beginning of the mining era. This is classed as an Urban Commuter facility, with the AADT for the last 9.9 km between the Red Lake-Balmertown limits and the Cochenour Dock being 1150 and the SADT 1200 [27]. This clearly indicates modest tourist movement.

Secondary Highway 618 from Red Lake to the Starratt-Olsen Mine some 15 km distant was assumed by MTC in 1972, although a road connection had been established since the beginning of mine operations in the 1950's. In 1980 this was classed as an Intermediate Commuter highway having an AADT of 350 and an SADT of 420 [27]. If a direct highway link between Red Lake and Winnipeg is developed in the future, it will likely extend westward from the mine terminal point of this highway. When the Redditt Road into the Minaki Crown forest management unit is pushed north, there could be demands for the creation of a link to Highway 518 to create a circular tourist and recreation travelway running from Kenora along King's Highway 17, northward along King's Highway 618, to link with the Redditt forest access road leading back to Kenora. Such a route should have considerable attraction for automobile landscape tourists moving about northwestern Ontario. Local anglers and hunters would use the connections to a considerable extent and there likely would be demands for short spur roads to high class areas. Some remote outpost camp operations would be annihilated in the process.

Secondary Highway 657, a 6 km route from Ear Falls to Gold Pines, is classed as a Suburban Commuter road. The AADT in 1980 was 400 and the SADT 430 [27].

Tertiary Highway 804, leading westward from Ear Falls for 21 km to power installations on the lower falls, is not listed in the traffic volume publication of MTC [27]. However, tourist traffic in this "dead end" route must be modest.

Secondary Highway 609, in the general vicinity of the southern boundary of Ontario North of 50°, runs westward from King's Highway 105 about 13 km north of Vermilion Bay to Clay Lake about 15 km to the

northwest. The route was classed as Intermediate Commuter in 1980 with an AADT volume of 125 and an SADT flow of 150 [27].

King's Highway 72, running for 69 km from Dinorwic on King's Highway 17 northwesterly to Sioux Lookout, was opened in 1935 and became an MTC responsibility as early as 1937. Tourism development entered the area immediately thereafter. In 1980, the highway was classed as a Low Tourist travel artery [27]. In the 28.3-km section between the Moonlight Falls Camp Road in Echo Township and Secondary Highway 664 (Patricia Corners), the AADT was 400 and the SADT 640, suggesting a moderately strong tourist flow for this part of northern Ontario. Sportsmen may make increased use of this route when the forest management access road leading northward from its terminus at Sioux Lookout is completed and open to public use.

Secondary Highway 644, running westward for 17 km from Patricia Corners on King's Highway 72 to Hudson, was completed in 1936/37. It was classed as Urban Commuter in 1980 [27], when the AADT was given as 600 and the SADT 630. Tourism is clearly a modest factor in the total use of the highway.

Secondary Highway 642, running for 78 km southeasterly from Sioux Lookout to Silver Dollar on Highway 599 leading to Pickle Lake, was open as far as Alcona in 1920. It opened in the 1930's, and became known as the Old Alcona road. It was assumed by MTC as early as 1964, although not as a secondary highway. In 1974, after improvements financed by NORTC, its status was raised to its present secondary highway designation.

In 1980, the highway was classed as Suburban Commuter [27]. The AADT for the 60.3-km section from Sioux Lookout to the Abitibi Camp Road was 150 and the SADT 160. From a tourism standpoint the volume increase in the summer season is insignificant. This is clearly a local use road even though it offers a circular diversion into interesting lake country for traffic moving along King's Highway 17.

Secondary Highway 599, leading northeastward for 298 km from Ignace on King's Highway 17 to Central Patricia, penetrates farther into Ontario North of 50° than any other highway under the jurisdiction of MTC. Portions of the highway between a point about 35 km north of Savant Lake and Osnaburgh House remain gravel-surfaced.

The highway was constructed in various segments over a period of years as lumber and mining roads were improved and taken into the provincial system. There was a private winter road here in 1949. In 1954, construction began on the section between Savant Lake and Pickle Lake to bring concentrates from the mine at Pickle Lake for shipment by rail from Savant Lake to the Bruce Mine. This road section was fully completed and in operation by 1956. Construction south of Savant Lake to Valora progressed steadily between 1960 and 1964. Simultaneously, highway building northward from Ignace towards Valora was progressing, although there had been a connection between these points since 1957 and earlier via a main haul road of the Great Lakes Paper Company.

This Ignace to Valora section, opened in 1936, was part of the Industrial Roads Program of MTC begun in 1962. In 1966 the segments were linked at Valora and assumed by MTC. A through highway for 298 km from Ignace to Central Patricia was now open to public use including tourism travel.

The 60.8 km of the highway between Ignace and Valora, all of which is situated to the south of Ontario North of 50°, was classed as Low Tourist in 1980, having an AADT of 700 and an SADT of 1100 [27]. That portion of the highway between Valora and Central Patricia that lies mainly North of 50° was classed as Intermediate Tourist with an AADT of 275 and an SADT of 400 throughout. A large percentage of tourists, particularly anglers and hunters, are represented in the daily increase of 125 in the average daily summer traffic flow. A moderate-scale tourist traffic study conducted either on an individual basis or integrated with the normal traffic count studies of MTC would be useful for tourism planning in Ontario North of 50°.

Secondary Highway 646, a short 8-km route from Central Patricia on Secondary Highway 599 to Pickle Lake, is really an integral component of the latter insofar as tourism is concerned. The route was classed as Suburban Commuter in 1980 with an AADT of 750 and an SADT of 810 for a 3.6-km section between Central Patricia on Secondary Highway 599 and the main entrance to Pickle Lake [27].

Secondary Highway 527 extends for 242 km from Highways 17/11 (Thunder Bay Expressway) northward to Armstrong where a connection can be made with the Pikitigushi Road (Forest Management Subsidiary Agreement road) running eastward across the northern environs of Lake Nipigon. The connection of Armstrong with King's Highways 17/11 has a long and interesting history. The Black Sturgeon River or Hurkett Road, an older main haul route of the then Department of Lands and Forests possibly constructed in the 1950's, ran down the west side of Lake Nipigon providing the main link for many years. In 1963, construction of Tertiary Highway 800, later to become Secondary Highway 527, was begun at the southern end and by 1965 had reached Chessman Lake. Concurrently, the northern portion of the old Black Sturgeon River Road southward from Armstrong was improved. Construction was completed by MTC but financed by MNR as a northern resources road. In 1970 the new and improved sections were linked providing a complete new and shortened connection between Armstrong and the outskirts of Thunder Bay. In 1976, Tertiary Highway 800, upgraded over a period of time, was taken over from MNR by MTC and designated Secondary Highway 527. The southerly part of the road for about 25 km north of King's Highways 17/11 is paved while the remainder is gravel-surfaced and likely to remain so in the near future. In 1980 the part to the north of Tertiary Highway 811 was classed as Low Tourist [27]. In this 92.7-km section the AADT was 100 and the SADT 160. Probably a very large portion of the 60 increase in the daily traffic volume of the summer season represents tourist movement.

Tertiary Highway 808 running from Pickle Lake has had a checkered history. It will probably be downgraded shortly to a non-status road and be maintained completely by NORTC funding. The road was originally built under the federal/provincial Roads to Resources Program but no formal agreement was signed with the hydro, timber and mining interests said to be involved. NORTC was forced to step in to maintain the road as a link with the northern Indian settlements and their winter road network out of Weagamow. While it is felt that some degree of maintenance is necessary, or at least desirable, ploughing for winter travel is not considered feasible for the future. At present, MTC shares up to 50 per cent of the maintenance costs with NORTC on the basis of public use of the road. Tourist traffic, especially anglers, hunters and perhaps wilderness canoeists, forms an important but undetermined percentage of public use.

Tourism Component in Highway Traffic Volume

Considering the Eastern Regional Network and the Western Regional Network together, classification and travel volume information is given in Table 7 for 38 segments associated with 30 King's and secondary highways. As indicated in the following summary (Table 8), tourism makes only a modest impact.

Eighteen, or 47 per cent, of the 38 segments received a form of tourist recognition. However, only four of these are associated with highways and locations North of 50° (584-Geraldton/Nakina, 643-Nakina/Aroland, 72-Dinorwic/Sioux Lookout, 527-Armstrong/Highways 11 and 17).

The two segments designated High Tourist were associated with Secondary Highway 647 leading to Blue Lake Provincial Park near Vermilion Bay and King's Highway 71 south of Longbow Corners in the general vicinity of Kenora. The two Tourist Class segments are associated with King's Highway 17 in the Kenora to Manitoba boundary area. All are south of Ontario North of 50°.

Highways in the Intermediate Seasonal Volume Variation category with a tourist emphasis include some North of 50°, namely 527 to Armstrong and 599 to Red Lake. The mean value of the difference between the SADT and the AADT for these two roads is only 112 vehicles, and that includes travel in both directions. Comparison of this statistic with 1587 vehicles for High Tourist segments immediately reveals the limited strength of the tourism travel dimension of these highways.

Bus Transport

It was considered most convenient to deal with bus transport at this point, although it is somewhat peripheral to highway infrastructure. Scheduled bus services are not significant in the transport infrastructure for tourism in Ontario North of 50° in terms of travel to either final destination points or major collection and distribution

TABLE 8

HIGHWAY SEGMENTS HAVING A TOURIST CLASS DESIGNATION

Tourist Class Designation			Mean SADT-AADT 1980
1. <u>High Seasonal Volume Variation;</u> <u>Tourist Emphasis</u>	No.	% ¹	
(a) Low Tourist (LT)	8	21	582
(b) Tourist (T)	2	5	775
(c) High Tourist (HT)	2	5	1587
	12	31	
2. <u>Intermediate Seasonal</u> <u>Volume Variation;</u> <u>Tourism Component Recognized</u>			
(a) Intermediate Tourist (IT)	4	11	254
(b) Commuter/Tourist/ Recreation (CTR)	2	5	525
	6	16	
	18	46	

¹Percentage of all 38 segments shown on Table 7

centres for air connections to fly-in sportcamps. Buses probably carry a few vacation or weekend holiday travellers who are visiting the homes of friends and relatives in communities on Highway 105 or who are picked up at these points and taken to their cottages or camps.

Greyhound Bus Lines operates a scheduled service along Trans-Canada Highway 17 and another along Highway 11 between Thunder Bay and Hearst. Grey Goose Bus Lines has a scheduled service from Winnipeg through Thunder Bay to Hearst. The Ontario Northland Transportation Commission operates a service on Highway 11 from Hearst to Timmins, North Bay, Toronto and Montreal. All the foregoing scheduled routes serve communities well south of Ontario North of 50°. Excel Coach Lines operates a daily scheduled run from Fort Frances through Kenora to Red Lake.

Charter tour buses on a trip across northern Ontario along Highway 11, or on a route confined essentially to the northeastern part of the province, generate a significant proportion of the ridership of the

Polar Bear Express with which they connect at Cochrane. This excursion train is an important, and at times the major or central, attraction of these tours. Given a growing market for bus tours generated by their popularity with the older retired segment of the travel market who do not wish to drive long distances on landscape tours, and the increased cost of gasoline for private automobile travel, bus tours are likely to become a steadily increasing element in the tourist pattern of those parts of Ontario North of 50° having highway connections and adequate accommodation and restaurant facilities to meet the needs. Sioux Look-out and Red Lake qualify in this respect. Assuming a continuation of the present government policy of reliance on air transport rather than highway construction to meet the access needs of the remote settlements in Ontario North of 50°, bus tours will not be of any concern in this part of the study area.

ROADS

Initially, discussion centres on a functional classification of access roads from the viewpoint of the Ministry of Natural Resources. Issues of public access and environmental impact assessment procedures are noted. Five types of road are then examined in greater detail, including Forest Management Subsidiary Agreement roads, industrial roads, non-status roads, winter roads and snowmobile trails.

While a number of roads noted in the text are shown individually on the accompanying map, it was impossible to portray the detailed forest access road network at the map scale employed. Only the northern limit of the network is indicated. Fortunately, this provides sufficient cartographic support for the narrative, especially the all-important issue statements.

A Functional Classification of Access Roads and Associated Funding, Environmental Assessment, and Public Use Provisions

The functional classification (Table 9) is designed to meet the needs of the tourism sector for a simple and readily applicable background frame of reference in discussions with government administrators related to the many pressing problems associated with access roads. In addition, it should provide the Royal Commission on the Northern Environment with a general overview of the situation that will prove to be of value in its remaining work.

The adoption of a basic Ministry of Natural Resources perspective in the functional classification was considered most productive. Through funds supplied by its own budget vote or transferred to it from the Ministry of Northern Affairs and the Northern Ontario Resources Transportation Committee, MNR is the major provincial government agency in the access road construction and maintenance field. It maintains about 8000 to 10000 km of roads across northern Ontario in its own name, many of these in Ontario North of 50°. It constructs some roads with its own staff and equipment. It administers and supervises the flow of grants and subsidies to non-government agencies.

Private industry, particularly pulp and paper companies, that maintains another 8000 to 10000 km of roads in northern Ontario, is also recognized in the classification. As will be seen immediately from a cursory examination of the classification, there is some overlap created by the introduction of the company perspective, but confusion is minimized through ample notation. When MNR administrators are discussing roads, their conceptual framework is essentially that shown in Section A of the classification. When the discussion is within the framework of company roads, the various classes and types of roads indicated in Section B are used. In effect, the same individual road may be slotted under a class or type in both Section A and B of the classification. The sections are not mutually exclusive in this respect.

Additional information considered vital to tourism interests is introduced in the right hand columns of the classification. Comment is presented on the significance of the pattern displayed following a brief discussion of the functional classes and types.

Among the eight types of MNR roads noted, Crown Management Unit (CMU), Forest Management Agreement (FMA), and Forest Management Subsidiary Agreement (FMSA) roads are directly related to timber and pulp wood harvesting and forest management. While the situation is fully explained in the notation accompanying the classification, it is useful to reiterate some essential differentiating characteristics and similarities.

Within the licensed company limits, the *Forest Management Agreement (FMA) roads* will be the major element of the future road pattern. The *Forest Management Subsidiary Agreement (FMSA) roads*, sometimes termed DREE roads, are a special feature of recent vintage and probably limited duration. It is the FMA and particularly the FMSA roads that are exerting a crushing, and in many cases mortal, impact on outpost camp operations and the maintenance of fish and wildlife quality in the southern margins of Ontario North of 50° and immediately to the south. They are well-constructed all-weather roads that penetrate long distances, often ahead of the normal anticipated cutting sequence, into remote wilderness type landscapes. Tourism interests, therefore, must seek to influence the decision-making process associated with these roads in terms of routing, alignment and operation, particularly the aspect of unrestricted public access.

Public transport roads are generally beneficial to tourism interests. They often provide shorter alternate or new access to collector and distribution points for fly-in operations. They draw vagabond landscape tourists into areas. They enhance the opportunity for local and regional leisure/recreation travel with its associated impacts in the commercial tourism sector. Finally, the theoretically short-term involvement of MNR in the maintenance of this class of road and the assumption of responsibilities by MTC would further enhance the tourism values or benefits.

TABLE 9

MINISTRY OF NATURAL RESOURCES FUNCTIONAL CLASSIFICATION OF
ROADS IN ONTARIO NORTH OF 50° TOGETHER WITH FUNDING, PUBLIC ACCESS AND
ENVIRONMENTAL IMPACT ASSESSMENT RELATIONSHIPS

Functional Classes & Types	Subject to Environmental Assessment(EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
A. <u>Ministry of Natural Resources Roads</u>				
1. Crown Management Unit (CMU) Roads Traditionally built and maintained by MNR; the regular roads of MNR. To help small sawmill operators and pulp cutters to access timber and pulpwood in the unit; theoretically stumpage dues are to cover public costs. Usually open to public for hunting, fishing and recreation travel and must be if funded by NORTC. Two types of roads: (a) <u>Main Haul Road</u> - NORTC funds only main haul roads (b) <u>Secondary Road</u> - to feed main haul road	MNR Class EA	100% NORTC transfer to MNR	100% MNR Vote	Yes
2. Forest Management Agreement (FMA) Roads Built and maintained on licensed limits of companies on cost-share basis. These roads will increase in importance as additional FMA's are signed between companies and the province. Subsidies are provided from a separate vote of MNR for main haul and secondary roads.	No EA Required	MNR 50% Company 50% to limits set	MNR 50% Company 50% to \$500 per mile	Yes

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment(EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
<p>(a) <u>Main Haul Road</u> - MNR subsidy for construction up to \$50,000 per mile and maintenance up to \$500 per mile.</p> <p>(b) <u>Secondary Road</u> - MNR subsidy up to \$25,000 per mile and maintenance up to \$500 per mile as with main haul roads.</p> <p>Subsidies are indexed to inflation. When FMA's are signed no funds will be provided under the Forest Management Subsidiary Agreement.</p>				
<p>3. Forest Management Subsidiary Agreement (FMSA) Roads (Sometimes called DREE Roads)</p> <p>Roads constructed and maintained under a federal (Environment Canada Forest Service)/provincial (MNA) agreement for the special purpose of harvesting timber in overmature areas and salvaging in burned-over areas located beyond present road network and its normal sequential extension.</p> <p>FMSA roads are functionally related to classes and types distinguished in other parts of this classification. The relationship is noted below.</p>				
<p>(a) <u>Crown Roads</u></p> <p>(I) to harvest Crown land resources; resources on CMU's</p> <p>(II) Service roads to reach nurseries and planting areas</p> <p>On a 50/50 cost-share basis between Environment Canada and MNA</p>	Under Class EA	MNA/ Environ- ment Canada		

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment (EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
<p>(b) <u>Company Roads</u></p> <p>Included in this group in Ontario North of 50° are the Obongo, Ogoki and Eastend Lake roads.</p> <p>Subsidies vary from 30% to 50% of construction costs</p>	No EA	MNA, Environ- ment Canada and Company		Yes
<p>4. Public Transport Roads</p> <p>Inherited (orphan) roads that are now maintained by MNR after abandonment by private companies.</p> <p>MNR does not build these roads but takes them over because they are needed to connect communities but are of too low a standard to be taken into the provincial highway system as primary, secondary or tertiary highways.</p> <p>MNR involvement is considered temporary or stopgap until taken over by MTC.</p> <p>The Auden Road connecting that settlement to Highway 11, the Jones Road and the Marchington Road are good examples.</p> <p>Maintenance is financed by NORTC with a transfer journal entry to MNR to administer the funds.</p>	Not Applicable		NORTC 100%	Yes
<p>5. Recreation Roads</p> <p>MNR is no longer building these roads, but in Ontario North of 50° some have been inherited when companies abandoned main haul or secondary roads used by the public for hunting, fishing and boat launching.</p>				

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment (EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
6. Cottage Roads Short roads to cottage subdivisions built and maintained by MNR	Class EA	100% MNR	100% MNR	Yes
7. Service Roads Built and maintained by MNR To provide access to MNR management facilities (fish hatcheries, silviculture camps, etc.), built in support of Ministry program From the standpoint of financing these roads can be classed as (a) <u>Normal MNR Roads</u> (b) <u>FMSA roads</u> - sec. 3. (a) (II)	Class EA Class EA Class EA	100% MNR 100% MNR 100% MNA /Envir- onment Canada	100% MNR 100% MNR 100% MNR	Yes Yes Yes
8. Winter Roads Constructed in remote settlements by Indian bands; funded by NORTC through transfer payments to MNR	Not Needed	100% NORTC to MNR	100% NORTC to MNR	Yes
9. Snowmobile Trails Constructed in remote settlements by Indian bands; funding as for winter roads	Not Needed	100% NORTC to MNR	100% NORTC to MNR	Yes
B. <u>Company Roads</u> 1. Private (Non-Subsidized) Built and maintained entirely by company to cut and haul pulp to the mill from company limits	No	100% Company	100% Company	No

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment(EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
<p>There are several types of roads:</p> <p><u>Primary or Main Haul</u> - long distance to haul pulp to mill or connect to highway system</p> <p><u>Secondary</u> - to transport wood from central point to main haul road</p> <p><u>Tertiary</u> - to gather pulpwood at central collection points</p> <p><u>Auxiliary</u> - to gain access to forest for cutting - low cost roads and trails</p> <p>With the grants available from NORTC and under the FMSA, private non-subsidized roads are decreasing in number.</p> <p>While these roads are not required to be open to the public, many in fact are used by local residents and tourists, sportsmen and recreationists</p>				
<p>2. Company (Subsidized) Multiple Use</p> <p>Built and maintained by company with a subsidy from:</p> <p>(a) <u>NORTC</u> transferred by journal entry to MNR for administration. The roads are built and maintained by the companies with the subsidy as follows:</p> <p><u>Primary or Main Haul</u> -subsidy up to \$50,000 per mile</p> <p><u>Secondary</u> -subsidy up to \$25,000 per mile</p>	No	NORTC, MNR and Company	NORTC, MNR and Company	Yes

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment(EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
(b) MNR under FMA program - see A.2. These are essentially FMA roads.	See A2 Above			
(c) from MNA/Environment Canada under the FMSA program. These are essentially FMSA roads.	See A3 Above			
Company roads are exempt from the Environmental Assessment Act regardless of whether they are funded privately or subsidized. However, companies must comply with legislation and regulations related to river crossings and fish spawning. MNR wildlife staff in district administrations review plans but are short of staff on many occasions.				
3. Mining Roads				
Few mining roads, if any, are built for exploration purposes in Ontario North of 50°.				
Under the NORTC program subsidies are provided for the construction of roads to haul production out for smelting. Most mining roads in the future will use the NORTC subsidy, the terms of which are the same as B.2(a) above.	See B2 (a) Above			
<u>Private Roads</u> are built by the mining or exploration companies using 100 per cent of their own funds. The company can close these roads to public traffic at any or all times. It may run trucks on them without any of the restrictions imposed by the MTC on public highways and secondary roads. Because of the availability of a subsidy from NORTC on a 50/50 cost-share basis, companies are constructing less private road mileage in northern Ontario.				

TABLE 9 Continued

Functional Classes & Types	Subject to Environmental Assessment (EA)	Source of Funds		Public Access
		Const- ruction	Maint- enance	
<p><u>Industrial Roads</u> built by companies on a 50/50 cost-share basis are open for public usage. Mining companies often complain that the effectiveness of these roads is severely constrained at times when they become clogged with lumber trucks and tourist vehicles, particularly anglers with large campers and boat trailers. In effect, mining companies would likely support the introduction of various constraints to tourist movement on these roads thereby putting them in alliance with outpost camp operators on this issue. Mining companies can, and do, use forest access roads to a considerable extent and, of course, the provincial highways.</p>				

The roads in this general class that are of importance to tourism and recreation travel in Ontario North of 50°, or in the area immediately to the south, are noted.

Auden Road, maintained by MNR from the northern extremity of Highway 801 to Auden on the CNR line, penetrates about 34 km north of 50°. The road, originally built in sections by Abitibi Pulp and Paper Company from about 1950 to 1960, is now used fairly extensively by recreationists, particularly hunters and anglers. Currently this road costs about \$1600 per km to maintain.

Fushimi Road owned by MNR runs northward from King's Highway 11, about 26 km west of Hearst, for a distance of about 40 km to the northeast corner of Fushimi Township. The road was constructed between 1965 and 1970 by the Department of Lands and Forests and is currently maintained in summer only by MNR at a cost of \$350 to \$800 per km. Today recreational travel represents the prime use of the road.

The *Pickereel Bay Road* or the *Minaki Road*, extending for 22 km south of Minaki to Middle Lake, was built by the Department of Lands and Forests between 1965 and 1975. Its prime use is for timber logging and pulp cutting, but considerable recreation and cottage traffic is observable in the summer. The road is a main haul route of MNR.

Recreation roads, inherited by MNR after the companies have abandoned logging roads at the termination of harvest operations, provide access to many commercial tourist camps in the southwestern parts of Ontario North of 50°, and particularly the areas situated to the south of the study area. Throughout Ontario each year, MNR may inherit 200 to 300 abandoned company roads of various types. Commercial tourist and sportcamp facilities have developed on the basis of this type of road access. There tends to be less conflict with industry over this class of road since they generally impact beneficially on tourism.

Cottage roads are essentially short travelways from major highways to cottage and resort subdivisions or Crown lands. There are a limited number of these in Ontario North of 50° and all are encountered in the southwestern sections. None have significant implications for tourism development.

Service roads, apart from those to fish hatcheries that often have an interest for tourists, are not of consequence for tourism.

Winter roads and *snowmobile trails* are fully discussed in subsequent sections of this report.

Company roads on licensed limits are generally open for public recreation use even when fully private or non-subsidized and hence eligible for restricted public access. Some of these roads are creating problems for remote fly-in sportcamps, particularly those receiving MNA/Environment Canada subsidies.

In the classification, the column indicating the requirement for an environmental impact assessment prior to road construction is of importance relative to the general interests of the Royal Commission on the Northern Environment and commercial tourism in particular. In the case of public transport roads and recreation roads under Section A of the classification, this procedure is not applicable since these route-ways were inherited by MNR in a developed state. In the case of winter roads and snowmobile trails that are of a semipermanent nature, natural environmental disturbance is minimal.

A substantial number of the roads are subject to class environmental assessment, a procedure that unfortunately can be of a rather perfunctory nature insofar as tourism aspects are concerned. Included in this group are Crown Management Unit (CMU) roads, Forest Management Subsidiary Agreement roads on Crown lands, cottage roads, and service roads.

A number of major roads constructed and maintained in cost-share arrangements between private companies and various public agencies, including MNR and MNA/Environment Canada, are exempt from mandatory environmental impact assessment: Forest Management Agreement (FMA) roads, private non-subsidized company roads, and company roads subsidized under the NORTC program or the Forest Management Subsidiary Agreement. From the social, economic and natural environmental standpoints in general and that of the tourism sector in particular, this exemption pattern is little short of a disaster. It is undoubtedly one of the more severe constraints or handicaps for the tourism sector associated with the road program and, indeed, the entire transport infrastructure aspect. It makes it difficult to interface effectively with the decision-making process in a public forum and opens up the possibility of undetectable adverse thrusts that are virtually impossible to check once set in motion.

From the information on the sources of funding, the importance of the role of MNA and NORTC, particularly in capital development, is clearly seen. The MNR vote is important in terms of maintenance. The funding aspects for particular types of roads are discussed in detail later in the report.

It will be seen from the classification that, as a general principle, roads built with public funds are open to public use. In effect, they can be used by hunters and anglers without restriction. It is a condition of any subsidy or grant provided through NORTC that the roads be open to the public, and the same qualification is attached to Forest Management Subsidiary Agreement roads. As noted previously, company roads are generally open to the public even when they legally could be closed.

Forest Management Subsidiary Agreement (FMSA) Roads

Given the current focus on these roads it was considered desirable to accord them individual attention in this study.

Of the five major components of the Forest Management Subsidiary Agreement concluded in 1981 between the federal Department of Regional Economic Expansion and the Province of Ontario, primary and secondary forest access road construction is dominant as indicated in the following summary. This component accounts for \$54.5 million or 76 per cent of the total of \$71.4 million involved in the agreement. In September 1982, the Forest Service of Environment Canada assumed federal responsibility for future roads of this type across Canada.

The stipulated purpose of the cost-share road program is to encourage the harvesting of overmature timber subject to disease and blow-down and the salvaging of burned-over lands in locations that companies following their normal cutting plans would not reach for a considerable period of time. In effect, the program tends to accelerate the introduction of forest access roads into remote wilderness areas at an earlier time than might have been anticipated from an observation and understanding of the normal sequence of past and planned cutting operations.

TABLE 10

SHAREABLE COSTS FOR FMSA ROADS

1981

Item	Shareable Costs	
	\$ Millions	%
1. Forest Access Roads (Primary & Secondary Construction and Maintenance)	54.4	76
2. Nursery Expansion	10.0	14
3. Silviculture	1.9	3
4. Soil Survey	1.0	1
5. Assessment (Applied Research Projects)	4.0	6
	71.4	100

Under the terms of the agreement, the cost of roads built on Crown management units (CMU's) is shared 50/50 between the federal and provincial governments up to \$50,000 per mile for primary roads and \$25,000 for secondary. In the case of roads built on the licensed limits of private companies, the Forest Service of Environment Canada meets 50 per cent of the cost while the Province of Ontario and the company share the remaining 50 per cent equally. The federal and provincial governments share 100 per cent of the costs of all bridges costing over \$25,000 whether situated on CMU lands or within the licensed limits of private companies.

The forest access roads under the subsidiary agreement listed on Chart 1 are shown on the map of surface transport infrastructure for tourism. With the exception of the Eastside Lake Road all are located North of 50°.

As a matter of general interest rather than due to any direct significant implication for tourism, a brief comment on the other components of the Forest Management Subsidiary Agreement follows. Funds for nursery expansion totalling \$10 million will be administered by the Ontario Ministry of Natural Resources. The \$1.9 million for silviculture will be spent by MNR to acquire trailers and other equipment required for planting on Crown management units. Soil survey in northern areas is a straightforward item. The \$4 million under assessment is to be spent on about 50 applied research projects. In this case, submissions for funding will be carefully reviewed by the Canada/Ontario Forest Research Advisory Committee (COFRAC). None of the above components that are shared on a 50/50 cost basis between the federal and provincial governments are of significance for tourism planning and development in Ontario North of 50°.

CHART 1

FOREST MANAGEMENT SUBSIDIARY AGREEMENT ROADS, MARCH 1982

- Eastside Lake Road - South of Pagwa River - just south of 50° north latitude
- Longlegged Lake Rd - Westward from general vicinity of Ear Falls - penetrates sportcamp area
- Ogoki Road - Northwest from general vicinity of Nakina; opens good angling lakes used by sportcamps. May or may not cross Albany River; subject of separate study by the Royal Commission on the Northern Environment
- Pikitigushi Road - Northeast of Armstrong into wilderness area
- Redditt Road - Into Minaki Crown Management Unit
- Vermillion River Rd - North of the Marchington Road to the east of Sioux Lookout
- Obonga Lake Road - West of Highway 27 south of Armstrong
-

From the standpoint of tourism development in Ontario North of 50°, the forest access roads built under the subsidiary agreement can be considered to represent a special case of the problem of the preservation of wilderness and angling quality under the impact of forestry roads in general, discussed in detail elsewhere in this report. It is obvious, however, that they represent a particularly disturbing element in the situation from both a present and future viewpoint. Considerable public funds are involved in making the impact both widespread and substantial in the commercial forest areas in the southern parts of Ontario North of 50°. As noted previously, the tendency of the program to open areas earlier than anticipated under the normal sequence of cutting operations, and possibly to exploit some forests that were hitherto uneconomic to cut, has broadened and deepened its distressing impacts on the tourism industry. Finally, the fact that these roads are penetrating the last frontier of extensive high productivity hunting and angling resources in northern Ontario places the wilderness tourism and remote fly-in sportcamp industry in a position with its back to the wall. There is no place else to run before the bulldozers.

Industrial Roads

Under provincial legislation, the Ministry of Transportation and Communications may designate a private timber, pulp or mining road as an industrial road for a maintenance grant or subsidy. The scale of the grant, while not specifically designated under the act, depends upon the amount of public use involved. Some grants where public use is minimal are as low as 10 or 15 per cent while others, where public use is high, range close to 50 per cent. The roads remain private in the sense that they have no license or weight restrictions, but they must be open to public use at all times. These are all excellent, all-weather roads designed to carry heavy loads of pulpwood, timber or ore. They may carry a considerable number of local residents, tourists and sport fishing and hunting parties. To date, the bulk of the program has focused on roads in the Sault Ste. Marie area and other locations outside of Ontario North of 50°. There are only two roads of this type in the study area.

Uchi Lake or South Bay Road

This road runs northeasterly off King's Highway 105 in the vicinity of Ear Falls to South Bay. It was built to enable the Selco Mine to ship concentrates to the Bruce Lake smelting and refining plant. Negotiations have been completed with Great Lakes Pulp and Paper to take over the maintenance and improvement of the road under a subsidy from NORTC because the company now requires it, and actually uses it, to harvest timber.

Aroland FMA Road

This is an industrial road operated by Kimberly-Clark under a maintenance subsidy from NORTC.

Non-Status Roads

The term "non-status road" requires clarification. Roads of this type were originally built by private timber, pulp and paper or mining companies for resource extraction. Because forest resources or ore bodies became permanently exhausted or temporarily uneconomic to exploit because of market situations, the roads were abandoned by the companies and allowed to deteriorate. Nevertheless, many of these roads continued to be used by the public for hunting, angling and cottage access. However, within the system of provincial highways and the road system of the Ministry of Natural Resources previously discussed, they have no official status and hence are termed non-status roads. Colloquially, they are often termed "orphan roads".

These roads may be reassumed by private companies some time in the future or they may never be used again. Pressure is sometimes exerted by local interest groups through various channels to have some maintenance or minor construction work done on sections of these roads. For example, a broken culvert may threaten to flood a cottage subdivision or prevent access to a highway by a small isolated settlement or resort area. MTC or MNR may undertake the work from its own budget appropriation or, as is more likely, through funds transferred from NORTC. They may be the contractor for NORTC or they may sub-contract the work to a private company.

In Ontario North of 50° there are several roads funded by NORTC and maintained by MTC or MNR that are not within their systems and are often referred to as non-status roads. Some are of major importance for tourism planning. Included in the group are the following: Moosonee Southerly, Nungesser Lake, Pickle Lake Northerly (Windigo), Marchington and Jones roads.

Jones Road

This road, leading northeast from Kenora for 131 km through Jones on the CNR transcontinental line and Grassy Narrows Indian Reserve to a point about 11 km east of Oak Lake, was built between 1950 and 1960. It has had a rather checkered construction and maintenance history over the 30-year period. Parts of the road that were built and are maintained by the Ontario Minnesota Pulp and Paper Company are private and gated against public use. The southern part maintained by MTC is largely an access road for the community of Whitedog and a recreation travel artery. These sections were built as a 50/50 cost-share project between NORTC and the federal Department of Indian Affairs and Northern Development at a total cost of \$100,000.

Marchington Road

This road, extending 55 km eastward from Secondary Highway 642 at Sioux Lookout to Highway 599 leading northward to Pickle Lake, was built between 1950 and 1960 by the then Department of Lands and Forests and has been improved intermittently since. Logging traffic represents the prime use with some recreation/tourist travel. At one time it was intended to provide access to possible mining developments on Lake St. Joseph for which Sioux Lookout was expected to be a dormitory community. To this end, DREE funds were applied to its construction. At present the possible mining development is dormant. The Marchington Road will likely become a secondary provincial highway in the near future.

Moosonee Southerly Road

This route has been cleared to the Kwataboahegan River, but only 8 or 10 km of road have been built. This non-status road is of local benefit only, being used to provide access to a youth camp and haul gravel and firewood to Moosonee.

In recent years, considerable discussions and some resource potential and cost/benefit investigations have taken place for a road to link Moosonee to Highway 11. The former Provincial Secretary for Resources Development, the Hon. Rene Brunelle, was a strong supporter of the concept that has lost considerable thrust with his retirement from government.

In 1975 the Ontario Ministry of Transportation and Communications completed a study of route alternatives, largely in response to these interests of the Provincial Secretary for Resources Development [26]. Six or seven alternative routes to link Moosonee to Highway 11 were identified. Three of the more suitable were examined in greater detail. Of these, one would provide a link with Kapuskasing through an extension of the road already in existence to Smoky Falls. Another would follow the railway alignment northward from Fraserdale, now linked to Highway 17 at Smooth Rock Falls by Highway 634. A third possibility involved a direct northward thrust from Iroquois Falls, probably integrating all-weather timber access roads now reaching northward to the Little Abitibi River in the general vicinity of Pierre Lake. The former two alternatives would provide a linkage with Onakawana.

While no full-scale economic feasibility study has been prepared for the Moosonee Road, the preliminary internal research completed by the Ministry of Transportation and Communications and the Ministry of Natural Resources was not favourable. Construction costs appeared to be in the order of \$500,000 per mile and, since unforeseen difficulties are likely in the poorly drained flat terrain of the Hudson Bay and James Bay Lowlands, even higher capital investment may be necessary in sections of the road. A brief overview by the Ministry of Natural Resources indicated no major natural resource development prospects in the vicinity that would be likely to generate traffic for the road. Kaolin and fire clay deposits are not felt to be a major prospect in this regard and the lignite coal at Onakawana was to be burned on-site to generate thermal power. Moreover, there are a number of potential associated negative impacts. The Ontario Northland Railway, in which there has been substantial public investment, would be undermined. Austin Airways Limited would be badly hurt. There would be a need for a substantial increase in OPP patrols. Finally, and of major importance from the standpoint of this study, the attraction of remoteness associated with the Polar Bear Express and the Moosonee/Moose Factory destination area facilities would be severely eroded. The highway would be filled with "pork and beaners" camping and angling their way to tidewater and making little beneficial local economic impact.

This negative impression generated by the studies was conveyed to Cabinet where the concept was shelved. The matter may arise from time to time but, without the strong support of the Provincial Secretary for Resources Development that it once had, it is not likely to be a serious proposition. The discovery of valuable nearby natural resources requiring transport for the import of heavy machinery and the shipment out of a bulk product could obviously change this picture. Even in the event of such a situation, it is probable that the railway could handle the needs, perhaps with some minor modifications.

Nungesser Lake Road

This road, essentially an extension of King's Highway 105 north of Cochenour, was started in 1967 and completed to the Berens Lake area by 1977. Originally it was intended to link the Favourable Lake gold and silver strikes north of Deer Lake to Cochenour/Red Lake, but this idea was dropped. It is now used mainly for timber extraction and to link winter roads and snowmobile trails of Indian settlements to the north. The road is passable to Berens Lake and is ploughed all winter. The Pikangikum Band is resisting the construction of a bridge across the Berens River and the extension of the road to the community. A considerable number of hunting and angling parties use this non-status road each season. In effect, it has significant implications for tourism planning and development in Ontario North of 50°, both now and in the future.

Pickle Lake Northerly (Windigo Road)

This road, begun in 1965 under the Roads to Resources cost-share program of the federal government, links the winter road network of northern Indian communities to the highway system to the south at Pickle Lake. It represents a strategic link in the transport planning of the Windigo Development Corporation, now in bankruptcy. Hunting and angling parties also use this non-status road, which is steadily increasing in importance from the standpoint of tourism. Tertiary Highway 808 to the south of the Pickle Lake Northerly will shortly be downgraded to a non-status road with maintenance assumed by NORTC.

Several years ago a concept was discussed to link the Nungesser and Windigo Lake roads into a major circular highway and road system, through the western sections of Ontario North of 50°, anchored on King's Highway 17 to the south. The route would have run from Vermilion Bay on King's Highway 17 up King's Highway 105 and the

Nungesser Road, across a planned northern loop through the MacDowell area to Upper Windigo Lake, southward on the Pickle Lake Northerly or Windigo Lake Road to Tertiary Highway 808 and Secondary Highway 599 to Ignace on King's Highway 17, and thence westward to Vermilion Bay. The route probably would have attracted anglers, hunters and landscape tourists in large numbers but the beneficial economic impacts for local residents might have been minimal on balance. The road might have been detrimental to long-range, well-planned, coordinated and adequately financed commercial tourism development, particularly if it had attracted only campers and "pork and beaners" seeking to circumvent the costs of the tourism and sportcamp facilities while creaming-off the high quality angling and hunting potentials within easy reach of the roads, sideroads and spurs.

Winter Roads

From the standpoint of tourism development in Ontario North of 50°, winter roads are not as potentially significant as snowmobile trails, truck and tractor train travel not being so compatible with the wilderness environment. Moreover, the roads are usable for only a short period of the year. Finally, their future as an economically viable transport mode is in question. Nevertheless, they may prove to have some marginally useful infrastructure support aspects.

Indications to date suggest that wheeled vehicle routes are probably more effective than tractor train routes in spite of higher construction and maintenance costs. However, the entire system is confronted with major problems. Since the roads are useful for only a 30- to 60-day period, sophisticated advanced timing and co-ordination of shipments are required. Lack of bulk storage facilities in the remote settlements is a constraint that can probably be overcome only by government funding and management input unless there is a sudden marked advance in local entrepreneurship and business initiative. Lack of investment capital and high interest rates discourage warehousing and storage of a whole year's commodity requirements. Weather conditions may make the construction and maintenance of winter roads impractical in some years. Finally, there is the ever-present competition from speedy, reliable air transportation.

There has been a lengthy and colorful history of winter road development by private interests in both the eastern and western settlement areas of Ontario North of 50° [28]. In the decade of the 1960's, Sigfusson Transportation Company Ltd. of Winnipeg operated an elaborate system of tractor train roads throughout northwestern Ontario and northern Manitoba that persisted in various forms until the mid-1970's. At that time, competition from air freight and the extension of Highway 808 to the vicinity of Windigo Lake, whence a winter truck road was built northward, became too strong.

The settlements in the northwestern part of Ontario North of 50°, including Sachigo, Bearskin Lake, Big Trout Lake and Deer Lake, were served by an extension of the company's Manitoba system leading northward from the Berens River Crossing to St. Theresa Point, Garden Hill and Sucker Lake. This route was augmented by an intermittent system leading northward from Red Lake to Pikangikum, Deer Lake, Big Trout Lake and North Spirit Lake. The settlements in the central part of Ontario North of 50° were served by a tractor train route northward from the Savant Lake railway station to Pickle Lake, Fort Hope, Lansdowne House, Webequie, Big Beaver House, Wunnummin Lake and Kasabonika. With the construction of Highway 808, the starting point of this route was moved to Pickle Lake, later to Wiebenville and finally to Windigo Lake as the road was pushed steadily northward. Considerable freight was flown from Red Lake to the westerly villages of Pikangikum, Sandy Lake and Deer Lake and from a private airstrip at Wiebenville to settlements in the north central part of Ontario North of 50°. Winisk and Fort Severn on the coast of Hudson Bay were never serviced by this tractor train system.

Dissatisfaction with the cost of freight led to the establishment of the Windigo Development Corporation in the early 1970's by the band councils of Round Lake, Muskrat Dam, Sachigo and Bearskin Lake with the aid of Grand Council Treaty #9. Mr. T. Sigfusson was retained as management consultant for this freighting company. Experience over the last few years had demonstrated that the operation was not the profitable enterprise anticipated, and substantial losses were incurred in the 1980/81 season. Much of the equipment is old and unreliable, having been purchased from the Sigfusson Company. Road construction, upgrading and maintenance/operating costs have escalated beyond expectations. Management and productivity output problems are now apparent. Finally, competition has been serious from aircraft that can carry fuel, one of the major bulk freight commodities, much more cheaply than formerly due to the use of Hercules aircraft and bladder tanks in DC3 planes.

Anicanabi Planning Consultants Ltd. of Fort Alexander, Manitoba presented a proposal to the Northern Ontario Resources Transportation Committee to investigate the feasibility of a winter truck road network in northwestern Ontario. Study costs were set at \$70,000. In 1981, an interministerial committee was set up to report to NORTC on the current and future economic viability of winter roads in northern Ontario. Preliminary impressions are not universally favourable.

Tractor trains have travelled the shoreline sections of James Bay and Hudson Bay since the 1930's. The Roman Catholic missions brought in materials and supplies in this manner in the 1930's. In the 1950's and early 1960's winter roads were used to haul materials for constructing and servicing the Mid-Canada Line radar sites in the tide-water region. The tidal flats, especially in the area between Moosonee and Attawapiskat, were followed and no extensive special clearing or maintenance was required.

In the early 1970's, the residents of Attawapiskat, with the support of Grand Council Treaty #9, became interested in a winter road to connect with Moosonee in the hope of reducing air transport costs for food and fuel and developing skills in this field. The Atik Corporation, a community enterprise in Attawapiskat set up in 1973, was funded by NORTC to construct a minimum cost winter road to Moosonee using the tidal flats as much as possible. In fiscal year 1973/74, the work was contracted to M.J. Labelle Ltd. of Cochrane.

Each year since then NORTC has granted funds for this winter road. In 1974/75, the Atik Corporation was funded to cut an inland trail between Moosonee and Attawapiskat with the work again being contracted to M. J. Labelle Ltd. The corporation actually hauled freight for the first time in the winter of 1975/76, using the tidal flats route in the main because of unusually cold weather and the absence of drifting snow. In the 1979/80 season, Mr. Weesk hauled from Moosonee to Fort Albany and to Attawapiskat to a lesser degree. In that year the Ontario Northland Transportation Commission hired its own tractor train to service its microwave stations located along the winter road. The Rev. John Clarke also hauled building materials to Kashechewan in the winter of 1979/80 for the construction of a church. The route did not operate in the winter of 1980/81.

This winter road is used every year on a fairly intensive basis for personal snowmobile travel regardless of its condition or state of completeness. The route offers excellent prospects for integration into a major winter wilderness travel program operated out of and between Fort Albany and Moosonee/Moose Factory.

In 1980 the Ontario Ministry of Natural Resources hired a consultant company to carry out an evaluation of the Moosonee-Attawapiskat winter road [21]. Termination of funding was considered, as was the funding of a tractor train route, also usable by snowmobiles, at an annual cost of about \$88,300. The latter was not felt to be a suitable alternative because fuel haulage would not be reduced appreciably. The funding by NORTC of a provincial winter road for both wheeled and tractor vehicles, costing about \$171,000 annually, was considered to offer significant potential savings in fuel carried by tanker truck, but additional benefits would depend heavily on local initiative to exploit opportunities. Therefore, it was concluded that the funding of a snowmobile trail at an annual estimated cost of about \$26,500 was the most suitable alternative at the time. This would be fully acceptable from the standpoint of winter tourism development planning and operation. Possibly funds could be obtained to include some vital amenity features for tourist and recreation snowmobiles using the routeway.

The distribution of the main winter roads is shown on the accompanying map of transport infrastructure. As indicated, there are two types of roads, tractor train and truck routes, that are suitable for ordinary tractor trailer and tandem vehicles. Most winter roads are of the tractor train type. Only those from the Round Lake to Sandy Lake communities and from Round Lake to Windigo are truck routes.

There is a marked element of flexibility in the winter road pattern. Routes that have remained idle for many years may be reopened by a transport operator obtaining a contract to haul bulk building materials to a settlement. In effect, there is a tendency to follow old routes to reduce costs and because of the confidence that a tried or tested route imparts. Each season the roads must be brought into condition beginning about mid-December. It may be mid-January before they are passable by heavy traffic. Some brushing or cleaning may be involved if the route has not been used for several years or if it follows a new alignment. The development of three or four inches of ice during an early season cold spell is often followed by a deep snowfall that causes the ice to sink and water to spill over the surface. Ice bridges must be built over river crossings subject to repeated floodings.

There is no strategic long-range planning for winter roads, and it would appear that the provincial government is reluctant to enter this field assertively. The band councils submit proposals for funding to NORTC in September or October and each request is considered on its own merits and in relation to the total budget allocated annually for these purposes. Over the years the federal Department of Indian Affairs and Northern Development also has funded some bands for winter roads.

The scale of recent construction costs per kilometer is indicated by the grants provided by NORTC for the fiscal year 1981/82.

TABLE 11

COSTS FOR WINTER ROAD CONSTRUCTION, FISCAL YEAR 1981/82

Route	Distance (Kilometers)	Cost \$	
		Total	Per Km
Fort Albany-Attawapiskat	110	25,000	227
Moosonee-Fort Albany	175	35,000	200
Pikangikum-Stormer Lake (Nungesser Lake Road)	40	36,500	912
Sandy Lake-Round Lake	137	10,000	730
Windigo-Round Lake	48.3	36,000	745

Source: Ontario Ministry of Natural Resources

In Ontario North of 50°, where the settlements are modest in size and widely scattered, the future of winter roads from an economic cost/benefit point of view remains uncertain. Tractor train routes are not suitable for the transport of food perishables and cannot compete with air freight. Apparently Supply and Services Canada will not use winter roads, either truck or tractor trailer routes, because of breakage, pilfering, loss of goods through the ice, and unreliable delivery. As noted previously, the use of bladders in the DC3 and Hercules aircraft appears to be a more economic way of handling bulk fuel, an important commodity in the economics of winter road haulage.

Snowmobile Trails

Snowmobile trails are of considerable interest in that they represent infrastructure that could be effectively integrated into a winter wilderness tourism program with limited additional costs. Considered from another perspective, winter tourism use offers an additional significant potential benefit to be introduced into the total cost/benefit framework for development and maintenance that currently rests primarily on the need for social travel between communities.

As previously noted, winter roads are frequently used for personal travel by snowmobile whenever their state of completion and condition is satisfactory. For example, the winter road between Attawapiskat, Fort Albany and Moosonee is regularly used by snowmobilers. In effect, the winter road network functions as a snowmobile travelway system to a considerable extent.

About six or seven years ago the Northern Ontario Resources Transportation Committee began to provide grants from a fund of about \$50,000 annually set aside for snowmobile trails to Indian bands making formal requests. When funds are not provided for a winter road, a grant for snowmobile travel may be made by the Committee as an alternative. The funds provided are administered by the district offices of the Ontario Ministry of Natural Resources.

The snowmobile trails constructed under this program in 1981 are shown on the map of surface transport infrastructure and summarized in the accompanying table. It is noted, however, that there are many additional trails across parts of Ontario North of 50° that have been constructed and maintained by trappers and bands without assistance under the grant program.

As noted, trails are constructed to meet the needs for social travel between communities for visitation of friends and relatives and attendance at community winter events. In some cases, such as Deer Lake, they appear to be used mainly to access traplines. They also provide an outlet to southern communities or to roads leading directly thereto, as in the case of the trail from Poplar Hill to Pikangikum that eventually connects to the Nungesser Lake Road and Red Lake, or the trail from Ogoki Post directly to Nakina about 173 km to the south.

In the case of the trail from Round Lake to Windigo Lake joining with the road system north of Pickle Lake, the facility was considered necessary for safety reasons; truck drivers on the winter road hauling commercial fish often found it difficult to see the snowmobiles. Where distances are reasonably short the trails can be used to haul light-weight and compact commodities, usually in a towed sled constructed locally for these purposes. These trails, however, do not represent a suitable transport system for most commodities, particularly bulk items such as fuel and construction materials.

TABLE 12

MAJOR SNOWMOBILE TRAILS IN ONTARIO NORTH OF 50° THAT WERE FUNDED BY
THE NORTHERN ONTARIO RESOURCES TRANSPORTATION COMMITTEE IN 1981

Route	Year Constructed	Distance	Cost \$	
			Total	Per Km
Deer Lake to Sandy Lake	1978-1981	144 Km	18,110	126
Fort Hope to Ogoki Post				
North Spirit to Sandy Lake				
Ogoki Post to Nakina	1977-1979	173 Km	34,400	199
Poplar Hill to Pikangikum	1981			
Round Lake to Windigo Lake				

Source: Discussions with Ontario Ministry of Natural Resources and
Northern Ontario Resources Transportation Committee

Snowmobile trails are considered minimum cost travelway facilities having an average overall route expenditure well below \$300 per km. The trail from Ogoki Post to Nakina cost just under \$200 per km. In

the alignment of the trails, maximum use is made of lakes and rivers to reduce clearing cost. Trails are about three meters wide. They are not intended to carry heavy loads, with a Bombardier being the largest vehicle that can be accommodated. There is a tendency to develop new routes each year and return to the old route every three or four years. Trails appear ideally suited for integration into a winter landscape snowmobile touring program involving travel between communities. Shelters and supply caches could be built at convenient points along routes and short spur trails cheaply constructed to lead to interesting features in the general vicinity.

TABLE 13

COST ESTIMATES FOR 65.6 KILOMETERS OF THE SNOWMOBILE
TRAIL FROM OGOKI POST TO NAKINA IN 1979

Item	Cost	
	\$	%
I <u>Wages</u>		
Foreman	1,200	10
Workers (4)	<u>4,320</u>	<u>38</u>
<u>Subtotal I</u>	<u>5,520</u>	<u>48</u>
II <u>Expenses</u> (About \$10 per day per person)		
Food	1,750	15
Skidoo Rentals	1,050	9
Gas	1,350	12
Oil	<u>626</u>	<u>6</u>
<u>Subtotal II</u>	<u>4,776</u>	<u>42</u>
III <u>Aircraft Charters</u>	<u>1,200</u>	<u>10</u>
<u>Total I, II & III</u>	11,496	100

Source: Northern Ontario Resources Transportation
Committee

An examination of the itemized summary of estimated expenditures for the construction of the final 65.6 kilometers of the trail from Ogoki Post to Nakina in 1979 provides a reasonable indication of the average cost situation. Wage payments for the construction spread over

a 5-week period with a 6-day working week and an 8-hour day at \$5.00 per hour for the foreman and \$4.50 for the workers totalled \$5,520. This was 48 per cent of the total budget. Food for 5 workers over 35 days at \$10 per day per person amounted to \$1,750 or 15 per cent. Five snowmobiles rented for 6 days at \$35 per day were estimated at \$1,050 or 9 per cent. Gas costs for the snowmobiles and chain saws at 15 gallons consumption per day at \$3 per gallon over 30 work days totalled \$1,350, and oil at 7 quarts per day at \$2.98 per quart equalled \$626 over the same time period.

As would be expected, construction costs have risen in recent years. Requests to NORTC for funds that were in the \$5,000 to \$10,000 range in the early years of the program are now in the order of \$15,000 to \$17,000. In the 1981/82 fiscal year, band council requests were as follows: Round Lake, \$15,000; North Spirit Lake, \$13,000; Deer Lake, \$17,800.

Interest in snowmobile trails is perhaps waning to a degree, due in large part to their limited value as make-work projects, something that has always interested native communities in their development. In the last couple of years requests to NORTC for funds have dropped to three or four per season as compared with seven or eight in earlier years. However, the integration of these trails in a winter wilderness travel tourism program could generate substantial renewed interest.

There is no long-range planning for these facilities. Funds are provided on the basis of the needs of the band council as defined in submissions to NORTC for funds. Any future requirements for these trails generated by winter tourism that have not been included in the support material of funding requests could lead to a consideration of the need for strategic planning for this transport infrastructure feature.

Local Roads Boards

Under the *Local Roads Boards Act*, MTC will provide assistance only for a road that is already in place and developed up to certain roadbed standards. Hence, under this program initial road construction is not funded, but the department will supervise improvements and maintenance upon request.

Cottagers can establish a Local Roads Board and apply for assistance whether on private land or in a Crown land subdivision of MNR. Cottagers often desire to improve and maintain the access road originally built for the subdivision by MNR to an all-year road so as to facilitate winter use of their resort properties.

A number of unorganized municipalities in Ontario North of 50° have set up Local Roads Boards. Some have a number of cottages in the community. Among this group are Savant Lake, Armstrong, Minaki, Redditt and Hudson. Some cottage subdivisions to the south of Ontario North of 50° and perhaps one or two in the Red Lake District of MTC also have Local Roads Boards.

RAILWAYS

Canadian National Railway

In the southern parts of Ontario North of 50° situated to the west of Pagwa River, the transcontinental Canadian National Railway was a key element in the transport infrastructure from the inception of the tourism movement in the early post-World War I period to the late 1930's with the advent of a highway network. To the east of Pagwa River, the impact was felt essentially in areas to the south of the 50th parallel of latitude. After World War II, especially after the late 1940's, tourist traffic carried to the region by rail rapidly declined to miniscule proportions and ceased altogether with the cancellation of passenger service on the transcontinental in 1980.

Minaki Lodge, constructed by the Canadian National Railway in 1926, was essentially, and in its initial years almost exclusively, rail-oriented from the standpoint of guest access. At that time, this prestigious resort was the hallmark tourist holiday accommodation attraction of all northwestern Ontario. To keep pace with the competition the Canadian Pacific Railway built a summer resort lodge at Devil's Gap on Lake of the Woods about a kilometer to the south of Kenora. It also was a rail-oriented facility in the early years.

Sportsmen and wilderness canoeists travelled by rail to Hudson and Sioux Lookout in the early 1930's to be flown north to camps at Fort Hope. Others debarked the train at such points as Armstrong, Auden, Nakina and Pagwa River to begin canoeing adventures in northern waters, sometimes travelling as far as tidewater.

Some sportcamps along or near the railway were dependent entirely upon it for transport of guests and supplies. In the early years of cottage development, the train was the main medium of access and for a few isolated properties it remained so to the present era.

With the exception of the Polar Bear Express, to be discussed subsequently, the railroad passenger traffic era in general and its tourist component in particular are over for all parts of Ontario North of 50° where track is in place. For those locations beyond the transcontinental line, there probably never will be such an era. If any railways are constructed in the future to mining developments in Ontario North of 50° it is likely that they will remain freight services. The fortuitous combination of supply and demand factors associated with the Polar Bear Express or the Agawa Canyon rail excursion of the Algoma Central Railway is not likely to be repeated in the area under study in this report.

Ontario Northland Railway: Polar Bear Express

In 1902, Royal assent was given to the Temiskaming and Northern Ontario Railway, for which survey work had actually begun two years earlier. In 1911 the railway reached Cochrane, thereby effecting a junction with the transcontinental. In 1923, construction began north of Cochrane and reached Moosonee on July 15, 1932. The tidewater region of Ontario then was linked to the heart of the southern urban region and Toronto by 1075 kilometers of track (Toronto - North Bay, 367 km; North Bay - Cochrane, 298 km). In 1945 the name was changed to the Ontario Northland Railway (ONR) and administrative responsibilities were transferred to the Ontario Northland Transportation Commission.

While some goose hunters and adventure travellers undoubtedly used the railway to Moosonee from its opening in 1932, organized tourism can be said to date from the development of the Hannah Bay Goose Camp by the ONR in 1947. This facility attracted increasing attention to the tourist and outdoor recreation assets of the area. With two inaugural trips in 1964, the ONR began the Polar Bear Express, an exclusively tourist and recreational service. Overall it has been a reasonable success from its inception insofar as rider response is concerned, although there have been some soft seasons in recent years.

The Polar Bear Express underwent a dramatic decline in ridership from 24,108 in the 1974 season to 18,100 in 1977. At a tourism development conference of the James Bay Frontier Travel Association in Timmins in 1978, it was noted that a previous survey had revealed considerable customer discontent with the rail excursion that represented the foundation of tourism development in Moosonee/Moose Factory and had important ramifications across a wider area of northeastern Ontario. At that time, the Minister of Northern Affairs agreed to finance a supportive and enhancement program on a one-year basis. The program, which has continued annually since 1978, has involved advertising support in the southern Ontario market on a 50/50 share basis with ONR up to a combined amount of \$100,000, the installation of basic toilet and washroom facilities in Moosonee and the Moose Factory museum complex, literature handouts to passengers now costing about \$1 per rider, travel counsellors on each train to explain points of interest and add colour to the trip (in part paid directly by MNA and in part through a transfer of funds to ONR), information officers in tourist booths in Moosonee, and support to interpretive services at the Centennial Historic Park development in Moose Factory.

In 1980 the Ministry of Northern Affairs spent about \$208,000 directly on the Polar Bear Express and improvements in the destination area. Expenditures of \$167,000 were budgeted for 1981.

Accepting an estimate of 22,638 riders on the Polar Bear Express in 1980, expenditures for train and destination area facilities by the Ministry of Northern Affairs averaged \$9.19 per excursionist. Considering only the contract payment of \$54,800 to ONR for student labour

TABLE 14

EXPENDITURES BY MINISTRY OF NORTHERN AFFAIRS FOR
POLAR BEAR EXPRESS AND DESTINATION AREA FACILITIES, 1980/1981

Item ¹	Cost \$(000)	
	1980	1981
A. <u>Polar Bear Express</u>		
1. Advertising & Promotion (50% share of \$100,000 with ONR)	50.0	50.0
2. Printed Materials (handouts on train)	21.2	21.0
3. Train Counsellors and Interpreters		
(a) Coordinators and 9 team leaders		
Salaries & Benefits	20.1	18.4
Travel Expenses & Allowances	5.1	5.0
Uniforms	<u>2.7</u>	<u> </u>
<u>Sub Total 3(a)</u>	<u>27.9</u>	<u>23.4</u>
(b) Students hired and supervised by ONR - contract payment to ONR		
	<u>54.8</u>	<u>45.0</u>
<u>Sub Total 3</u>	<u>82.7</u>	<u>68.4</u>
<u>Sub Total A</u>	<u>153.9</u>	<u>139.4</u>
B. <u>Contracts for Construction, Equipment, Maintenance and Rentals on train and in the destination area</u>	44.2	17.5
C. <u>Services and Supplies on train and in destination area</u>	9.9	10.0
<u>Total</u>	<u>208.0</u>	<u>166.9</u>

Source: Reference [33], pp. 24 & 25.

¹The item categories involve regrouping of information in source documents that may have resulted in slight errors.



Plate 2: Moosonee terminus of the Polar Bear Express. (Source: Ministry of Tourism and Recreation.)

under the Experience 80' program, the contribution of MNA was \$242 per rider. Clearly, both the transport and the destination area infrastructure at Moosonee/Moose Factory involve substantial provincial government subsidization. Over the past 6 years, probably up to, or just over, \$500,000 in support payments of that type have been made.

Actually the Polar Bear Express, or Moosonee Excursion Train, has been operating at a substantial loss. As shown in the following table supplied by the Ontario Northland Railway, there was an estimated net loss of \$210,500 in 1981. This was about \$9.30 per one-way passenger trip using 1980 travel volume statistics (22,638 one-way trips). Calculated on the basis of a return trip, the comparable value is \$18.60. Of major importance, the foregoing estimates make no provision for capital depreciation of locomotives or maintenance-of-way expenses. This must be one of the greatest tourist travel bargains in North America, or perhaps the entire world.

The tourist has two train travel alternatives for a trip to Moosonee/Moose Factory. Those seeking true local flavour, or wishing to take canoes and deboard at some intervening point, can take the regular scheduled train that runs three days a week north and three

days south. The Polar Bear Express, which takes no freight and operates over 11 weeks or 63 days beginning about the last week in June and ending always on Labour Day, represents the second choice. During the summer season, it runs six days a week in each direction except on Friday.

The itinerary of the one-day excursion on the Polar Bear Express is quite full. The tourist boards the train at Cochrane at 0745 arriving at Moosonee at 1215. An assortment of walking, boat and bus tours in various combinations, together with shopping and dining, consume the afternoon. The excursion train departs Moosonee at 1715 arriving back in Cochrane at 2120. This is the choice of the majority of the excursionists. Two package tours from Toronto (3 days/2 nights or 4 days/3 nights) using the Northlander to Timmins are available. Both involve overnight stops in the Empire Motor Hotel in Timmins on the way in and out, with excursionists busing to and from Timmins to catch the Polar Bear Express at Cochrane. Return package tours (3 days/2 nights or 4 days/3 nights) also are available from Timmins. While all package tours allow limited time in the Moosonee/Moose Factory area, this is probably sufficient considering the extent of the resources available for visitation.

Each excursion train is made up of 12 air-conditioned coaches having a total capacity of 600, two dining cars and an entertainment coach. The rolling stock is refurbished annually. There are no plans for expansion since the train has run well below passenger capacity in recent years.

A number of problems are associated with the operation of the Polar Bear Express apart from the financial difficulties noted previously. Some are logistical while others are related more to local attitudes.

Cochrane, with its limited accommodation, has been a persistent problem. In the height of the season, those staying overnight to catch the morning train may be backed up to Smooth Rock Falls, or farther, seeking accommodations. Because motels in Cochrane will not hold rooms until 11 pm when the evening bus arrives, package tours must be based on Timmins, which is an inconvenience to the excursionist. Newly constructed modern motels could not survive solely on the business generated by the Polar Bear Express, and there is inadequate additional year-around demand in Cochrane; hence it is difficult to overcome the accommodation limitation. However, two approaches appear to offer some possibilities. "Shell-type" minimum summer season motels involving low capital investment and offering rudimentary, modest-priced, sleep-over accommodations might be attempted. Alternatively, the development of substantial tourist home capacity might provide the solution as will be seen from the attempt to move in this direction in 1981.

Investment under various programs of the Ontario Ministry of Northern Affairs, the Heritage Trust and the Archaeological and Historic Sites Branch of the Ministry of Citizenship and Culture has done much to offset the lack of washroom facilities and interesting

TABLE 15

ONTARIO NORTHLAND RAILWAY PROFIT AND LOSS
ESTIMATE, POLAR BEAR EXPRESS, 1981

	\$(000)	\$(000)	\$(000)
I <u>Revenue</u>			381.2
II <u>Expenses</u>			
1. <u>Direct Costs</u>			
Wages - Train Crew	204.1		
Operations			
Plus 27.5%	56.1	260.2	
Tickets		2.5	
Shop Stock Material		31.5	
Locomotive Fuel		53.2	
Bus Services		18.3	
Advertising		50.0	
Entertainment		6.2	
Travel Expenses		7.4	
Commission		45.0	<u>481.3</u>
Passenger Cars			
Net Operating Profit			<u>(100.1)</u>
2. <u>Indirect Costs</u>			
Locomotive Expenses			
48,872 mi x 1.536		75.0	
Administrative and			
Accounting		7.5	
Toronto Office		27.9	<u>110.4</u>
Net Loss			<u>(210.5)</u>

¹Does not include locomotive depreciation or maintenance-of-way. In addition to above, MNA paid \$30,000 for wages and expenses of escorts and \$50,000 in shared advertising costs.

Source: Information provided in correspondence with Ontario Northland Railway, North Bay

tourist attractions that was a standard complaint of excursionists. Investment in ground and water transportation and pleasure tours by Two Bay Enterprises in recent years has also helped to overcome the lack of a product at the destination.

The native people have not demonstrated any strong and reliable initiative in support of tourism business opportunities generated by the Polar Bear Express apart from the operation of water taxis between Moosonee and Moose Factory. Failure to put a sustained effort into the canoe trip from Moose River Crossing to Moosonee ended this promising commercial proposition in the third summer of its operation after much effort was put into advertising and promotion. The trip, involving one night of camping on the river, was fairly popular, having 30 or 40 canoeists each summer and showing good future prospects from a marketing standpoint.

Finally, it is of major importance to note that no other point in Ontario North of 50° offers comparable supply and demand strengths. A railway line was already in place and capital investment only in modest rolling stock was required to initiate the service. The destination area with its historic associations and the lure of Hudson and James Bays provided strong support. Direct rail connections were available to the Metropolitan Toronto market and the southern terminal of the route at Cochrane interfaced with King's Highway 11, the high-northern east-to-west tourist artery. In spite of all these advantages, however, the excursion train is not financially self-supporting, something that has obvious limiting implications for tourism development.

Other Railway Lines

The 80-km track of the Smoky Falls Pulp and Paper Railway extending northward from Kapuskasing is used exclusively for hauling pulp. The Algoma Central & Hudson Bay Railway, originally intended to link Sault Ste. Marie with saltwater, was built only as far as Hearst and hence does not penetrate Ontario North of 50°. It is now under CN control. The CN line northward from its junction with the trans-continental line at Amesdale to the Bruce Lake Mine is an industrial freight service and of no importance to tourism development in the study area.

WATER TRANSPORT

Inland wilderness canoe and boat waterways are an important component of the natural resource supply foundations for tourism. In recent years, the Ministry of Natural Resources has placed considerable effort into the publication of maps and guides to assist travellers using these routes. Some minimal improvements have been made to portages at a few points and sporadic clean-up and maintenance operations have been carried out.

The operations of Two Bay Enterprises at Moosonee represent the only commercial boat tour or cruise facilities in the study area. Moreover, no comparable developments are foreseen at other points in the immediate future.

There are no natural harbours and docking installations in the settlements along the coasts of Hudson Bay and James Bay in Ontario North of 50° that are capable of handling international cruise ships. Essentially, the area is excluded from this market on a permanent basis.

The extensive shallow water offshore margins of the bays and the poor estuarine approaches to settlements, which make marine inter-community freight movement difficult and unpredictable, are virtually inhibitive for the development of commercial cruise boat operations. Recreation and tourist travel between settlements using small power boats and freight canoe also is not practical from a commercial business standpoint, even if the market were much stronger.

The successful operations of the Polar Princess in the mouth and estuary area of the Moose River represent a special case. Here, a strong market brought to the area largely by the Polar Bear Express, coupled with a modest-scale natural water resource and associated historic resources, has created a viable business opportunity. No other settlement on the coastline offers this fortuitous combination of market and resource potentials.

PART TWO

IMPLICATIONS AND ISSUES

PART TWO

IMPLICATIONS AND ISSUES

MAJOR IMPLICATIONS FOR TOURISM PLANNING, DEVELOPMENT AND OPERATION

RELATED TO AIR TRANSPORT

From the standpoint of tourism development in Ontario North of 50°, the overall regional pattern of scheduled air services, the infrastructure of airport and seaplane base facilities currently in place, and the prospects for their gradual improvement as traffic increases are excellent. Moreover, the system appears to possess sufficient potential flexibility to accommodate increased traffic volume and travel from new market areas in Europe, Asia and distant points in continental North America. Tourism interests should maintain adequate surveillance of government and private carriers to ensure that present conditions and future developments remain favourable to them.

It is important to recognize that the construction of airstrips in the remote northern settlements of Ontario North of 50°, the probable increase in passenger and freight traffic to these locations and, of particular interest to this study, a rapid and substantial increase in tourism travel by air could result in a shift in logistics. More specifically, new air transport collection and distribution centres may emerge in some northern settlements such as Big Trout Lake or Weagamow augmenting, or perhaps to a degree competing with and supplanting, those in more southerly locations such as Sioux Lookout, Geraldton and Pickle Lake. Tourism's need to reduce air travel costs and increase convenience for landscape tourists and sportsmen in this case could be a major catalyst for change. Again, it is important for tourism interests in Ontario North of 50° to exploit fully the degree of potential flexibility in the system to attain the travel infrastructure required for a viable and profitable industry.

There is likely to be a steady increase in airstrip development at outpost camps to reduce operating costs. This would permit direct access from the collection and distribution points, eliminating transfer costs to boats, positioning costs for charter aircraft and pilot holdover charges.

Delays sometimes encountered in obtaining charter services, together with rental charges and positioning costs, often tempt outpost camp operators to purchase their own aircraft. Such a course of action must be approached with extreme caution and only after the full range of alternatives has been adequately explored. Capital and operating costs are high, placing an almost intolerable burden on many camp operations, especially if no additional charter business can be obtained

both inside and outside the tourism sector. Extensive debt incurred at current high rates of interest can be devastating. Equally important, limited managerial resources can be quickly overstrained by the requirements of what amounts to two distinct business operations. Without a commercial pilot's license, the camp operator is often at the mercy of the hired pilots, something that can present difficulties if alternative high-paying jobs become available in the general area.

RELATED TO HIGHWAYS

On the basis of a Cabinet decision to rely on air transport to meet the needs of the remote settlements in Ontario North of 50°, there was no comprehensive, systematic expansion of the highway network into Ontario North of 50°. Moreover, there could be a downgrading of some existing facilities such as Tertiary Highway 808 north of Pickle Lake to a non-status road. Assuming a limited number of resource development access roads and adequate control over public use, the Cabinet decision could represent a foundation for the development of a sustained, high-quality, northern frontier tourism industry yielding maximum local investment, employment and income. Equally important, local control of the pace and scale of the development should be achievable. The situation stands in sharp contrast to the unplanned mass tourism development associated with the dense highway network to the south.

Clearly, the exploitation of the opportunity stemming from the decision not to expand the highway network is dependent on control of the resource access roads. Without adequate continuous control the opportunity will be destroyed or seriously impaired.

The current highway system effectively channels tourist automobile and charter bus parties from southern markets to sportcamp and resort developments in the southern margins of Ontario North of 50°, and to the major collection and distribution points where chartered services can be obtained to fly to remote areas. Constraints on tourism expansion in the hinterland of the highways are imposed by distance from markets, location relative to primary continental and regional tourist travel arteries, and resource management practices, particularly unrestricted public use of forest access roads, rather than by any physical limitations in the extent and quality of the highway network.

Considering the nature and scale of the stakes for the tourism industry, it is imperative that the private investors, their representative associations, and the provincial Ministry of Recreation and Tourism devise suitable arrangements to maintain a constant vigilance over decision-making for highway development in northern Ontario. They must effectively interject their interests and concerns at the initial policy and planning stages.

Tourism interests associated with the Polar Bear Express should continue to market their product strenuously in the wholesale holiday bus tour sector of the travel trade, particularly in the Great Lakes basin and the eastern seaboard of the United States. With the strong possibility of marked increase in bus tours in the total tourist movement of North America over the next decade or more, communities in Ontario North of 50° having highway connections should devote serious attention to the growth of this modest sector of the total market.

RELATED TO ROADS

Resource extraction and development roads in general, and forest access roads in particular, have the potential to virtually destroy the commercial remote fly-in sportcamp and wilderness travel industry over a large part of Ontario North of 50°. The continued future of the industry depends on the identification and vigorous consistent application of effective procedures to interface with the decision-making process from the initial road planning stages through construction and operation to final abandonment and destruction.

The variety of functional types and related terminology, together with the multiplicity of funding and administrative agencies involved, imposes significant limitations on attempts of the tourism industry, acting as individual operators, through private associations or even supporting provincial government tourism administration, to deal effectively with the problems and issues of road construction and maintenance. The fact that there are both beneficial and detrimental impacts involved, and the vital need to contain the latter, necessitates a full understanding of this situation and the immediate development of effective procedures to contend with it. A major initiative is required to combat this constraint without delay.

There are a wide variety of divergent, and sometimes diametrically opposed, interest groups involved, including commercial tourism, public parks, local resident hunters and anglers, and resource harvesting and extracting industries. Moreover, the problem has politically explosive potential. The foregoing circumstances, together with a major change of attitudes towards the economic and social value of tourism and the right of public access towards a common property (Crown land, fish and game), clearly indicate that tourism faces a difficult obstacle.

The sudden and unexpected introduction of large sums of public money through federal (Environment Canada) and provincial (MNR) agencies for the construction of access roads for forest harvesting and management has been intensively destructive across the entire southern part of Ontario North of 50°. Moreover, the widespread geographic extent of forest access road developments makes it difficult for private tourism interests to deal with them effectively, which in turn demands a greatly enhanced supportive effort by the provincial tourism administrative groups at both the headquarters and regional levels.

In any discussion of financial support for the tourism sector, or compensation for damages caused by road construction, the public subsidization of the access roads requirements of the private forest industries should always be fully exposed, as an instrument of leverage. By comparison, compensatory needs of the tourism sector would often be miniscule.

RELATED TO WINTER ROADS

Winter roads are not an important current or prospective element in the transport infrastructure for tourism development in Ontario North of 50°. This contrasts sharply with the snowmobile trails.

If truck routes are developed that connect directly with the highways to the south there could be a future negative impact as sportsmen travel north with trucks trailing snowmobiles for winter ice fishing. Fortunately, this does not appear to be an immediate problem; should a volume movement of this type build up there should be possibilities for control of adverse impacts and perhaps the attainment of economic gains by the local population.

The possible downgrading of the Moosonee-Attawapiskat winter road to snowmobile trail status would not be detrimental for tourism. As a snowmobile trail, the route would represent a major infrastructural element in the future development of winter wilderness snowmobile package tours in the Moosonee/Moose Factory/Fort Albany area. In future negotiations with the Northern Ontario Resources Transportation Committee, the tourism sectoral interests should ensure recognition of the potentials associated with this snowmobile trail and, at the appropriate time, obtain funding for the construction of the amenity facilities required along the route, including shelters.

RELATED TO SNOWMOBILE TRAILS

The pattern of present and future snowmobile trails in the remote areas of Ontario North of 50° must be recognized as a significant infrastructural element of a tourist winter wilderness travel experience and be effectively integrated into the planning, development and marketing of package tours of this type. Trails for intercommunity travel are in place in many cases. Inexpensive shelters and supply caches can be built at appropriate points and side trails built to interesting nearby natural and cultural landscape attractions. Equally important, the additional benefits from tourism could then be taken into consideration in the preparation of the total balance of cost/benefit calculations for snowmobile trails in submissions to the Northern Ontario Resources Transportation Committee for financial assistance.

RELATED TO RAILWAYS

Every effort must be made to maintain and expand the market for the Polar Bear Express, a premium or hallmark attraction for mass tourism in the southeastern sections of Ontario North of 50°. In this regard it is important to build up steadily the array of tourist attractions at the Moosonee/Moose Factory destination end of the excursion and to provide adequate holding accommodation at Cochrane. Sufficient response by private native and non-native business interests must be encouraged for the development and operation of tourist attractions at the destination of the excursion.

Within the foreseeable future, there will be no developments in other parts of Ontario North of 50° comparable to the Polar Bear Express and Moosonee/Moose Factory tourist attraction complex. No other location possesses an in-place railroad to capitalize on, has comparable cultural resources at the destination end of the line, and can so effectively tap mass tourism markets in metropolitan areas and along major highway travel arteries.

RELATED TO WATER TRANSPORT

No opportunities exist along the coastal waters of Hudson Bay and James Bay for the attraction of international cruise ships to the settlements, or for the development of local regional boat tours between the communities.

There are no viable business prospects for the introduction of new commercial boat tour operations such as the Polar Princess at Moosonee, either in other coastal estuary locations or on larger interior lakes in Ontario North of 50°, due to market constraints and the nature of local natural and cultural landscape attributes. The only possible exception to this generalization might prove to be the Lac Seul area between Sioux Lookout and Ear Falls, where a boat tour might form a component in the development of the complex of historic resources related to water transportation for gold mining in the early 1900's. At present, however, market constraints are severe with everything depending on a gradual build-up in mass tourism in response to historic resource development.

ISSUES

RELATED TO AIR TRANSPORT

There are no current major issues related to air transport. However, there are some problems within the context of the tourism sector in Ontario North of 50°, one of which might become an issue in the future.

Outpost camp operators using charter air services to bring guests to their camps sometimes complain that their needs do not receive sufficient priority, particularly if the charter company is short of aircraft at a particular staging point or too busy servicing camps owned and operated by the carrier enterprise. Secondly, there is a feeling, noticeably among some goose camp operators, that aircraft positioning and pilot holdover charges place an excessive cost burden on their operations. As mentioned previously, this can give rise to the consideration of aircraft purchase by the outpost camp operator, a procedure that frequently has the propensity to generate insurmountable management and financial problems.

If new logistical arrangements are required to accommodate increased tourism in and around the remote Indian settlements north of 50°, the question of priorities in the granting of licenses is almost certain to arise. This is obviously an integral component of the more general issue of control and access to economic development opportunities in that part of Ontario north of the 7th and 11th base-lines. More specifically the problem, which could quickly become an issue of importance, is essentially related to the provision of the charter air services by carriers based in the more southern centres of Ontario North of 50° or in locations immediately to the south, as opposed to the encouragement of native-controlled operations through education, training and financial assistance programs to individuals or development corporations.

RELATED TO ROADS

The issues associated with the planning, construction and operation of roads for natural resource development and extraction, forest access roads in particular, are among the most critical in the entire tourism sector. They reach to the heart of the continued existence of much of the tourism industry, particularly its outpost sportcamp segment.

Requirements for Environmental Impact Assessment

The exclusion from mandatory environmental impact assessment of forest management (FMA) roads, private non-subsidized company roads, and company roads built and maintained on a cost-share or subsidized basis is a major issue. The intensity of the issue is heightened by the sudden, unanticipated entrance of access roads into the landscape in force as a result of relatively massive public funding. As well, the roads are bringing increasingly strong development pressures to

bear on the last extensive areas of remote hunting and fishing camp opportunities in the Boreal forest. There is no more-remote area to which this part of the industry can retreat. Moreover, climatic conditions generally prohibit conversion to family resort tourist and recreation complexes.

If these roads were made subject to environmental impact assessment, tourism interests would have access to a formal procedure and public forum through which, or within which, the economic and social significance of their industry and the impact of roads on it could be adequately expressed. Alternative route and alignment opportunities could be identified and assessed in terms of a total cost/benefit framework that adequately recognized tourism. Finally, construction and operational control procedures could be imposed to minimize detrimental impacts.

Of major importance, the interests of commercial tourism, public parks and outdoor recreation groups, and wildlife/fisheries management find common ground in this issue. Tourism should avail itself of every opportunity to strengthen and exploit this base of mutual interest and concern.

Tourism Sector Involvement in Forest Access and Mining Road Planning, Approval and Operational Processes

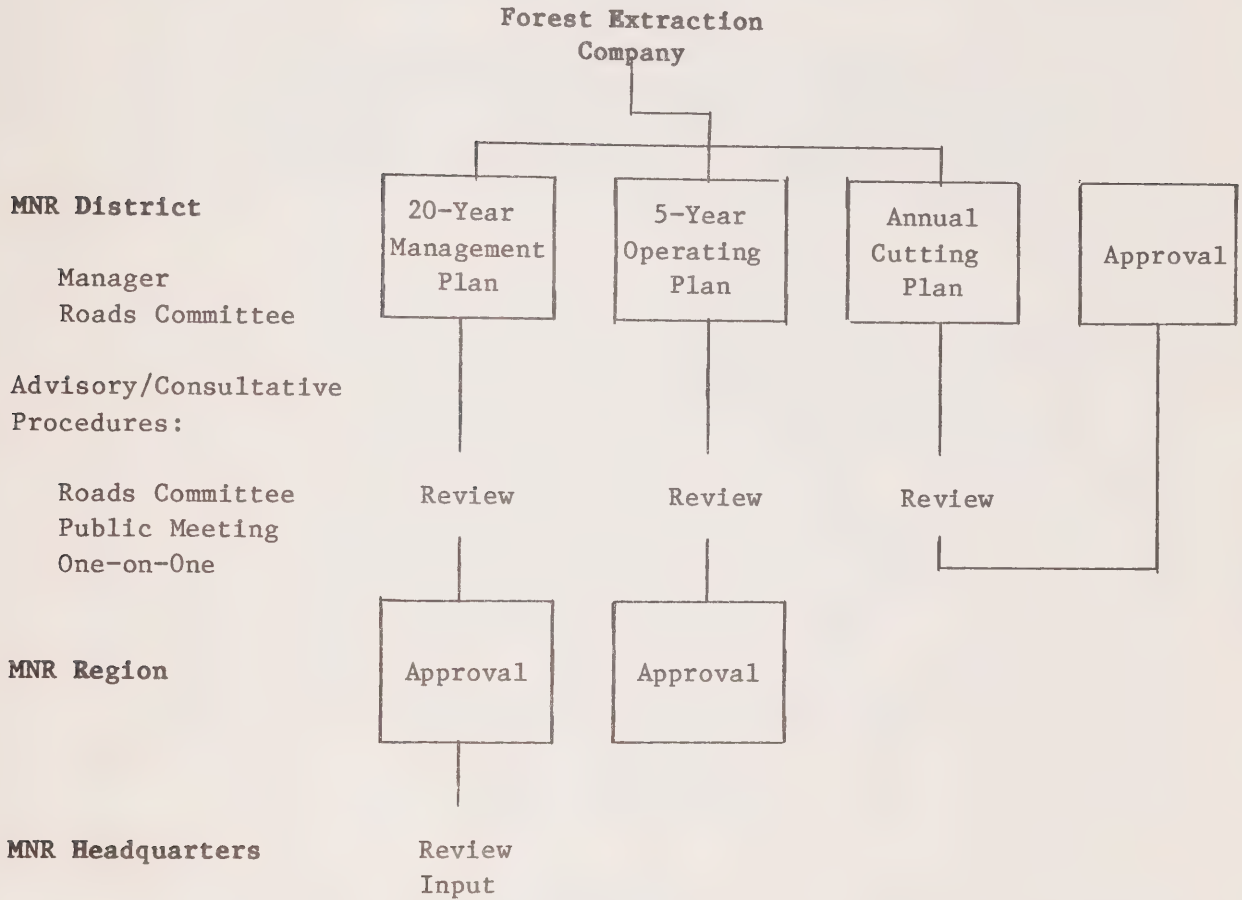
The steady penetration of forest access roads into the last frontier of wilderness travel and commercial remote fly-in sportcamp operations, together with the perceived inability of the tourism sector to ensure adequate recognition and accommodation of these interests in the associated planning, construction and operational procedures, represents the most volatile tourism issue across northern Ontario in general and the southern parts of Ontario North of 50° in particular. Moreover, there is no readily available solution in view that appears to represent a practical compromise between the multiplicity of interest groups involved.

Given the vital importance of the issue and its widespread, timely, and dynamic nature, considerable descriptive information is presented in this report. Initially the general approval process is reviewed. This is followed by an examination of the various approaches adopted by the individual MNR district administrations. Finally, several tools available to MNR for the solution of problems are discussed.

The general approval process for access roads is summarized in Chart 2, which is based to a considerable extent on information presented at the access roads discussion in Thunder Bay in 1981. [27]

CHART 2

APPROVAL PROCESS FOR ACCESS ROADS



In the case of the 20-year management plans, the 5-year operating plans and the annual cutting plans, the review process takes place initially at the MNR district staff level. There may be a formal roads committee composed of supervisors for wildlife, fisheries, parks, forestry, and so on that reviews, comments and makes recommendations to the manager. The operation may be less formal in structure but the process is essentially the same. Changes can be effected at this level prior to contact with the advisory agencies.

Several external advisory consultative procedures are employed by MNR district managers, including recourse to a roads committee, public roads meetings and one-on-one discussions with individual tourist and remote camp operators affected by a particular road. Public inspection and comment on the plans at the time of their formulation and any time thereafter are possible.

The 20-year and 5-year plans are approved at the regional level of the MNR administrative structure and returned to the companies for implementation. Input may be made to the 20-year management plan by the Resource Access Coordinator of the Land Management Group and headquarters staff in Toronto.

The review and approval process adopted for the annual road plan is entirely an MNR district matter. Recourse could be made by camp operators, however, to the regional administration or to political representation in the event of major dissatisfactions that could not be resolved.

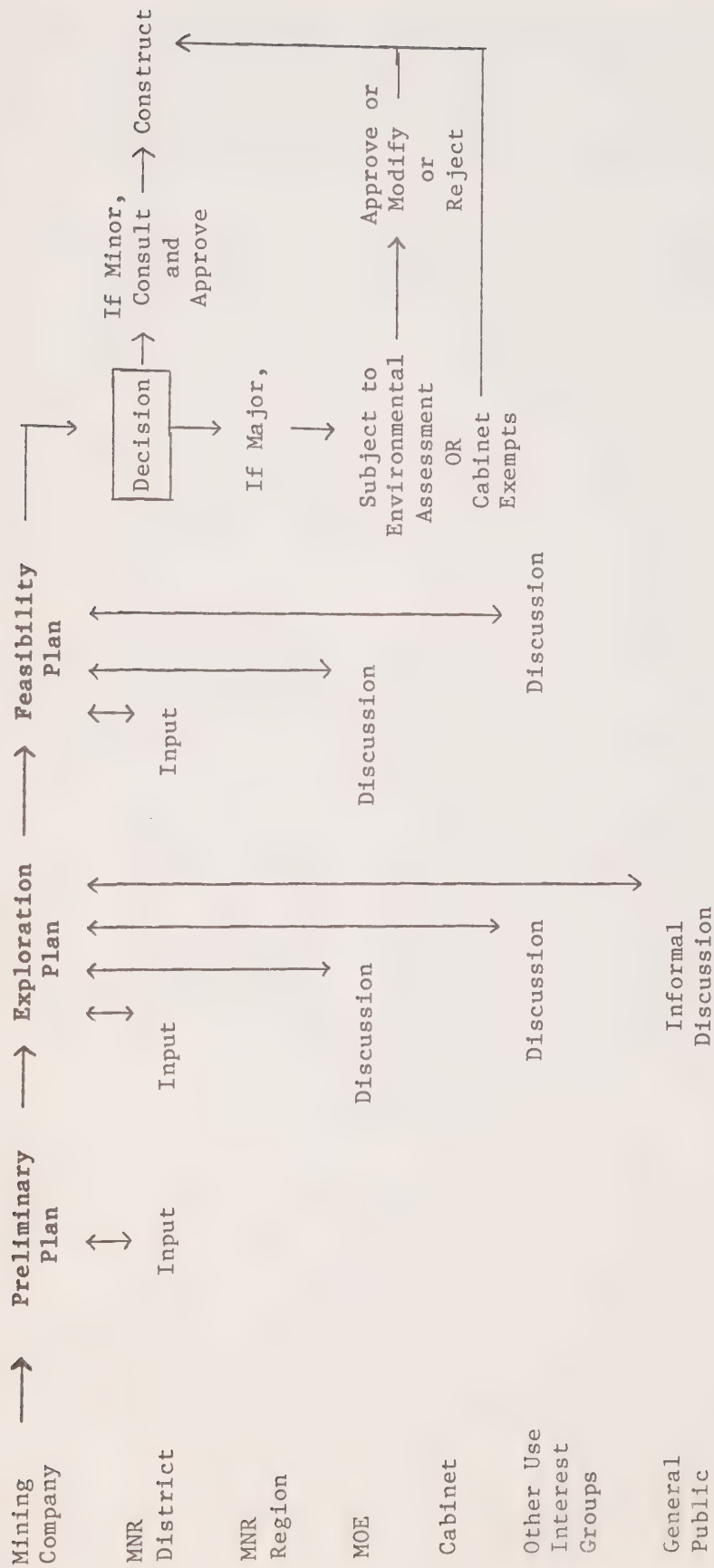
While the structure appears to provide ample opportunity for general public and tourism sector involvement in the review process, it is impossible to determine the effect exerted by such involvement on plan formulation or modification. This would require a detailed assessment of past operations; as much of the process may not be recorded in files, this type of research would be difficult if not impossible to undertake.

It is clear, however, that the process is retrospective, advisory and consultative in nature insofar as interest groups outside MNR and the forest extraction companies are concerned. All major initial policy and strategy decisions concerning the primacy of land use in an area, general route location or thrust, and construction timing have already been made. The reactive review process of the tourism sector, either on a group or an individual basis, focuses almost entirely on adjustments in alignment and forest reserves designed to mitigate detrimental impacts. In effect the major decisions are taken outside the tourism sector that interest groups represent, coming to the sector essentially as a *fait accompli* and leaving only the minor items to be influenced by the review process. A new approach that brings both the tourism sector administration of the provincial government and the private enterprise operators individually and in association into the formative stages of the process is essential. Without this, the prospects for a viable tourism industry may be dashed to all intents and purposes over much of the commercial Boreal forest area.

While it may be possible to cite the occasional example of private sector review bringing about major changes in routing and timing, the limitations inherent in a retrospective review process will prove to be the rule.

The planning, review and approval process for mining roads is summarized in Chart 3. A decision must be reached on the basis of a sequence of discussions with a variety of provincial government agencies at the district, regional and Head Office levels, use interest groups including tourism, and the general public in order to determine whether the proposed road is a major or a minor undertaking. In this process the District Office of MNR is involved with the company at the preliminary, exploratory and feasibility stages of the proposed project in an active participatory manner in the selection of corridors and alignments likely to exert the least detrimental impacts on landscape values and existing land use in the area, including tourism developments. Exploration and feasibility plans are discussed with various agencies and groups as shown, with the exploration plan being most widely discussed as indicated in Chart 3.

APPROVAL PROCESS FOR MINING COMPANY ROADS



If the road is considered to be a minor undertaking on the basis of the process, construction can commence. The District Office of MNR will continue to perform consultative and approval functions over the progress of the work as deemed necessary to ensure that landscape values and the interests of other users in the area are not impaired by the construction process.

If it is concluded that the road proposal involves a major undertaking, it may take either of two decision routes. The proposal may be designated as requiring an environmental impact assessment under the *Environmental Assessment Act*, which may lead to its approval, rejection or modification. Alternatively it may be exempted from the Act and approved by Cabinet for construction. As shown in the Detour Lake Road study of the Royal Commission on the Northern Environment [33], Cabinet is all-powerful in such a situation and may actually reverse its decision in midstream, so to speak. The Detour Lake road proposal was required by Cabinet to undergo environmental assessment. After the proponent submitted a controversial and generally unsatisfactory report, Cabinet exempted the road from the process and approved immediate construction, along an alignment that had already been partly cleared in any event.

In each district office of MNR, the annual timber cutting plans are reviewed internally at the supervisory staff level, sometimes by a committee formally established for this purpose. As can be seen from Chart 4, a varied approach to the individual tourist operators affected by the construction is adopted in each district, this being a matter for managerial discretion to a considerable extent.

Varied approaches, largely at the District Manager's discretion, have been adopted by MNR to include the tourism sector in the critical problem of forest and, to some extent, mining access road development. In some districts several devices are employed, including a specific annual road meeting, a general tourism sector meeting at which roads are one of several items discussed, and working group discussions and consultations with tourist operators affected by a particular road either in a group or on an individual basis, usually the latter. Some MNR districts rely only on the latter devices.

It was not possible for this study to gain an appreciation of the detailed nature and effectiveness of the involvement of tourism interests in the operational patterns of these access road committees and annual discussion meetings. To do so would have required attendance at and monitoring of a representative sample of the meetings and a very extensive file search designed to determine the final outcome of complaints, suggestions and recommendations from the tourism sector to MNR. In the absence of this type of research investigation it is difficult if not impossible to evaluate adequately the validity of the conflicting points of view expressed by private tourist sportcamp operators and district officials of the Ministry of Natural Resources.

CHART 4

PROCEDURES OF MNR DISTRICT ADMINISTRATIONS FOR TOURISM SECTOR
INVOLVEMENT IN ROAD MATTERS

<u>District</u>	<u>Arrangements for Tourism Sector Involvement</u>
<u>Cochrane</u>	An <i>Annual Tourism Meeting</i> is held with the tourist and outpost camp operators in late October or early November in the district office of MNR. Interests, concerns and issues across the entire range of Ministry land and resource management operations and responsibilities are discussed. Roads are a major item at most meetings. Maps of 20-, 5- and 1-year forest management and cutting operations by companies are displayed. In addition, major planned roads are discussed in the district office with the individual sportcamp operators affected, usually on a one-on-one basis.
<u>Dryden</u>	In June 1981 a type of <i>Annual Meeting</i> was held in Vermilion Bay with the camp operators at which all 20-, 5- and 1-year forest management and associated road plans were presented on a single map and discussed. Since it was late in the season the district management took the meeting to the operators at a convenient point rather than having them come to Dryden. Consideration is being given to setting up an internal MNR Roads Committee to recommend to management whether there should be open public meetings to discuss a particular road.
<u>Geraldton</u>	An <i>Annual Roads Meeting</i> with the tourist operators in the district is held each spring (April or May). Emphasis is placed on roads to be built that year. All operators are sent letters informing them of the date of the meeting. Each year the road construction plans of the companies and MNR are reviewed internally by the district staff and impacts on tourist operations are noted.
<u>Hearst</u>	<i>Working Group Meetings</i> are held at Hornepayne with tourist operators four or more times per year to discuss forest access road questions in particular parts of the district. At these sessions representatives of the company, the Ministry of Natural Resources, the Northern Ontario Tourist Outfitters Association, the local road liaison appointee, and the individual tourist and outpost camps affected are present. No general annual meetings are held but rather working groups are assembled to discuss problems in the two major tourist areas to the east and west of King's Highway 11 and divisions thereof.

CHART 4 Continued

<u>Kapuskasing</u>	Plans for roads are reviewed three or four times a year by an MNR internal <i>District Roads Committee</i> . Individual camp operators affected are called in for discussion on individual roads. The district representative of NOTO was not consulted in this matter. He participated solely as a member of the District Advisory Committee for the land use planning process.
<u>Kenora</u>	<i>Annual Road Meetings</i> are held to discuss cutting plans with tourism interests including the Kenora District Camp Association, Northern Ontario Tourist Outfitters Association and individual camp operators. When new roads are planned they are advertised in the paper and the outpost camp operators involved are called in for discussions with the company and MNR officials.
<u>Moosonee</u>	Forest access roads are not a problem and no special arrangements are required.
<u>Nipigon</u>	<i>Annual Roads Meetings</i> are held in November at Armstrong and Nipigon, two central locations in the district for tourist and outpost camp operators. At this time a full range of matters related to MNR operations and responsibilities is discussed. Frequently roads are a major interest of the meetings that are well attended by the tourist operators and last through several hours of lively discussion. At these sessions MNR presents a map of company and MNR roads that will probably be built during the coming 12 months. An internal <i>District Administrative Committee</i> reviews all road proposals submitted by companies as do the district supervisors in satellite administrative offices in Nakina and Nipigon.
<u>Sioux Lookout</u>	An <i>Annual Roads Meeting</i> is held about April, when American camp owners are in the district but sportcamp operators have not yet become totally involved in the work of the coming season. All 20-, 5- and 1-year forest management plans and associated road construction plans are presented for inspection and discussion. Throughout the year, there is fairly steady contact with two NOTO representatives (one for remote outpost camps and one for road-accessible camps) or with individual campowners regarding road matters.



Plate 3: Forest access road, a threat to the remote sport camps.
(Source: Ministry of Natural Resources.)

Some claim that the whole process is little more than posturing towards the tourism sector and that it has no chance to meaningfully affect a resource management process dominated by a forest harvesting mentality. Others point to numerous examples of adjustments in company outlook and individual road alignments that have been beneficial to tourist and outpost camp operators.

A number of problem-solving tools are available to MNR at the district management level. All have been applied in a varying manner at one time or another, by one district or another, with differing degrees of success. Included in the group are the restricted public use concept, the controlled public use concept and the limited time use concept. The Affleck Guidelines discussed subsequently contain elements of the previous three together with quantitative operational limits for their implementation in some cases.

Under the *Public Lands Act*, an MNR district manager can open and close roads at his discretion. Companies can restrict the use of roads built by them on their leased limits; however, increasingly, direct and indirect pressure is applied in a number of ways to open them to public use. For example, it is government policy that all roads receiving grants or subsidies from MNR, NORTC or MNA must be open to public use. If the roads are not restricted, MNR does not charge private companies for the aggregates that they take from Crown lands to construct the roads. Since aggregates can be worth a great deal, the companies readily agree to public use.

Restricted Public Access, which excludes the use of the roads by local resident sportsmen and tourists, coupled with adequate aesthetic forest reserves, is clearly the best solution of the three discussed for the maintenance of a viable remote outpost camp industry. It is equally clear that this is totally unacceptable to the local resident population and hence politically unpalatable. Nevertheless, it is important to note the nature and scale of the alternatives involved in the trade-offs in this instance, one of which could conceivably entail collapse of the remote sportcamp industry in part or in total in many parts of northern Ontario, including Ontario North of 50° and areas near it.

Controlled Access, particularly that involving restricted use at critical spawning or mammal reproduction periods, probably represents the minimal strategy tool that must be rigidly employed if the quality of the resource base is to be reasonably maintained, something obviously in the interest of both the commercial camp operators and the local or resident angling population. It is possible that the community of interests may make the controlled access tool the most acceptable.

Under the *Limited Time Use* concept, forest access roads are to be destroyed, that is rendered impassable, once timber in the area has been harvested and the subsequent silvicultural work completed. Issues in this case centre around the length of time allowed for reforestation work which, if excessively long, would expose quality angling resources to virtual annihilation, and the extent of the road-bed to be destroyed. Political pressures to keep a road open indefinitely after the public has become used to travelling on it are often extremely strong.

In 1981, a sub-committee composed of six staff members of MNR and reporting to the Northern Ontario Resources Transportation Committee was formed to produce a set of operating guidelines for the field staff in northern Ontario to use in the approval of the location of access roads so as to minimize their impact on outpost camp operations. In addition, the committee was to examine existing instructions related to shoreline and road forest reserves and to produce another set of operating guidelines that would optimize landscape aesthetics but minimize the loss of merchantable timber volumes. Both mandates of the committee are of vital consequence for tourism. One is directly related to road access and the other has important peripheral relationships.

The report is frequently referred to as the *Affleck Report*, after the chairman of the committee who was then the Deputy Regional Director of the North Central Region of MNR. Although the recommendations in the report may not be equally applicable in all of MNR's administrative districts, the report may be considered to provide the general policy framework for present decision-making relative to access roads. The essential elements of the guidelines are set forth in Table 16.

Few if any forest reserves were to be considered untouchable timber preserves, but a set of ten guidelines was laid down to govern harvesting in special circumstances.

In September 22, 1982, following the introduction of the application of these guidelines by MNR district managers, the Ministry of Northern Affairs convened a meeting in Sault Ste. Marie with representatives of MTC, MNR, MNA, Ontario Forest Industries Association, Ontario Federation of Anglers and Hunters, Northern Ontario Tourist Outfitters Association, Municipal Advisory Committee (Thunder Bay), Ontario Mining Association, Great Lakes Forest Products, Dome Mines Group and Wildwaters Expeditions to discuss the guidelines. From an examination of the summary of the comments of the meeting and briefs presented by various groups, a reasonable impression of the nature of the issue and opposing points of view can be obtained. The salient aspects are presented in the Table 17, based on Reference [24].

The Onaman Lake Road, an old logging access road in MNR Nipigon District that was closed to within 1.6 km of the lake so that sportsmen could not haul in boats and motors, provides an example of the application of the guidelines. A canoe had to be carried in and out each day, no caches being allowed. This restriction seems to have preserved the pickerel sport fishery.

A creel census is done each year on this lake over a two- to three-month period. About 75 per cent of the people interviewed, representing local residents coming from Geraldton, Thunder Bay and Jellico/Beardmore together with tourists from southern Ontario and the USA, were satisfied with the access restrictions. The lake is too distant to attract winter sport fishing but its northern end supports a commercial whitefish operation. At this season of the year the fish populations tend to separate, with the pickerel being at the south end of the lake.

The Affleck Guidelines have never been entirely satisfactory to MNR district administrators, tourism interests, or public recreation and landscape support groups, as can be appreciated from the commentary on Table 17. In some respects they could be regarded as temporary operating guidelines pending further more comprehensive investigation of the matter. To this end the Ministry of Natural Resources instituted a Task Force on Resource Access Policy, under the chairmanship of the Resource Access Co-Ordinator, Land Management Branch, Headquarters Office, Queens Park. It was set up in 1981 to examine the problem of public use across the entire gamut of roads within the system. A report has been completed and presented to the Minister, who has accepted the central policy recommendation to the effect that controlled public access must be implemented. The group is now

TABLE 16
SUMMARY OF AFFLECK GUIDELINES

A. Related To Forest Access Roads

1. All main and secondary forest access roads will be located at least 610 meters (2000 feet) from the shoreline of designated lakes, that is lakes designated by the district managers of MNR as important for outpost camp operations and requiring guidelines to mitigate forestry/tourism conflicts.
2. All secondary roads should be destroyed by scarification or other means to within 1.6 km of a lake or to the junction with a main road after logging is completed and regeneration established.
3. All construction plans for the up-coming year by private companies and MNR will be reviewed by district managers in consultation with local NOTO representatives and tourist outfitters to be affected.
4. No deviations will be made from 1 and 2 unless:
 - (a) the district manager meets the timber company to explore alternative routings, constructions or removals, possibly resulting in a modified road plan acceptable to all interests involved;
 - (b) a meeting is called to resolve situation (a) above when no acceptable plans can be effected.

B. Related to Establishment and Management of Forest Reserves

1. Forest Reserves may be established for or in the interests of one or more of the following:
 - Protection against erosion and siltation of adjacent water bodies
 - Maintenance of aesthetics of travelway corridors (roads, railways, trails, canoe routes)
 - Maintenance of forest productivity and use of wood fibre
 - Maintenance of fish and wildlife habitat
 - Preservation of significant historic, geologic, fishery wildlife or vegetative features.
2. The minimum depth shall be:

	Meters	Feet
- Alongside major highways (11 & 17 etc.)	183	600
- Alongside secondary highways	122	400
- Around large lakes (40 ha+)	122	400
- Alongside railways	91	300
- Along trout streams	30	100
- Alongside significant canoe portages and trails that cannot be kept free of logging debris	30	100

TABLE 17

COMMENTS ON AFFLECK GUIDELINES

A. Related To Forest Access Roads**1. Location**

Ministry Of Recreation And Tourism (MRT)

"Criteria for designated [tourism or sportcamp] lakes should accompany guidelines and...should be worked out in consultation with MRT."

Municipal Advisory Committee, Thunder Bay (MAC)

"MNR should establish a procedure that would indicate consultation with resource user groups in determining what lakes would have designated status."

Northern Ontario Tourist Outfitters Association (NOTO)

"Access roads should be located with reference to the reserve around designated lakes as follows:

- main roads 1500 meters
- secondary roads 600 meters
- tertiary roads 200 meters"

Federation of Ontario Naturalists (FON)

"Should include more than just outpost camps" in the lake designation process.

Ontario Federation of Anglers and Hunters (OFAH)

"Ultimately the general public will demand access to all lakes."

The foregoing clearly delimit the concern of tourism interests with the manner in which tourist lakes are designated and with the prescribed depth of the reserve areas between them and various types of highways and roads to serve as a buffer to prevent easy public access and maintain aesthetic values. The public interests in the issue are equally strongly expressed, from the viewpoints of both local resident access to hunting and angling resources and the need to consider wildlife, park and wilderness areas in the whole process.

TABLE 17 Continued

2. Post-Logging Treatment of Roads

OFAH

"If access roads have been built with government assistance, they should be left open to the general public, not destroyed."

MRT

"If regeneration takes up to 11 years it is too long for open access." In effect, forest access roads should be rendered impassable as soon as cutting is finished.

NOTO

"Similar concern [expressed] about regeneration and suggest that both secondary and tertiary highways be destroyed to 1.5 km from the reserve immediately after logging is completed."

Tourism interests clearly expressed their desire to close roads to public use after they are abandoned by the logging companies. Local sportsman interests (OFAH) clearly set forth the opposing viewpoint.

3. Dialogue with Tourist Operators and Associations

MRT

"Dialogue should involve all affected operators" and MRT.

NOTO

"Both one-year and five-year plans should be reviewed with local tourism bodies and MRT... any unresolved conflicts should be taken to the regional level."

OFAH

"Dialogue should involve all users from the beginning."

FON

"Dialogue should extend beyond just tourist operators, and should not be limited to one year in advance."

Tourism interests expressed fear of exclusion from the decision-making process or, stated in a positive sense, desired to be involved from the beginning. The comments of FON and OFAH expressed an equally strongly perceived need to broaden the base of interest groups involved beyond commercial tourism.

TABLE 17 Continued

4. Deviations from Location Guidelines*NOTO*

"Not only the timber company , but also the tourism bodies and MRT should be involved in finding alternatives, and if this is fruitless, the district manager should refer it to his superiors."

Ontario Mining Association (OMA)

"Should be a procedure for handling deviations in which all involved are consulted, but the final decision would rest with MNR".

The foregoing provides a clear expression of the need for tourism interests to be represented in discussions involving deviations from guidelines.

B. Related to Forest Reserves1. Minimum Depth*NOTO*

- major highways	200 meters
- secondary highways	150 meters
- larger lakes (40 ha)	150 meters
- railways	negotiable
- trout streams	100 meters
- portages or trails	100 meters
- islands less than 1000 ha	no cutting
- islands greater than 1000 ha	200 meters
- commercial tourist establishments measured from the periphery of the land use permit or patented land	600 meters

Source: Reference [24]

examining the full range of procedural options or management tools available to MNR for implementation of the policy. It would appear that the examination of policy options was completed by the Task Force entirely in-house with no or only limited input from the tourism sector. This procedure has become a hallmark of MNR policy and strategy planning insofar as the tourism sector is concerned.

RELATED TO RAIL TRANSPORT

In this instance the sole issue, which is both political and administrative, centres around the continued financial assistance of the Ontario Ministry of Northern Affairs for the operations of the Polar Bear Express and a substantial portion of tourist attractions in the destination area. Starting as a short-term financial aid program to enhance and enrich the tourist experience of the train excursion, which had declined radically in ridership, assistance is assuming the dimensions of a permanent operating grant. Substantial precedent-forming attributes have ensued, as evidenced by recent aid for the Agawa Canyon run of Algoma Central Railway. Could, or should, this precedent for rail excursion considered critical to the development of tourism in a particular region be extended to cruise boats or bus excursions in other parts of the province? If tourism is a viable business and an economically beneficial activity in this part of Ontario North of 50°, at what point in time should the private sector be expected to assume full responsibility for all costs associated with the operation? Does the Polar Bear Express represent a special form of tourism infrastructure for which continuous provincial government financial support can be justified? And, if so, what is the supporting rationale and what are the terms of future dispensation?

PART THREE

SUPPORT DOCUMENTATION

PART THREE

SUPPORT DOCUMENTATION

RELATED AGENCIES, PROGRAMS AND INFORMATION OUTPUT

Framework of Salient Legislative, Administrative and Development Events*

A summary framework of salient events of provincial transportation legislation, administration and development over the period from 1901 to 1982 has been prepared in order to provide tourism interests with a modest historic perspective. No attempt has been made to present a complete history of highway and road development. Rather, the intent is to provide a useful and readily accessible summary of major events.

In 1901, *An Act for the Improvement of Public Highways* (1901 Ed VII C32) was passed establishing a fund of \$1 million for highway improvements. Counties were to designate highways to be improved and the work was to be carried out in accordance with the regulations by the Department of Public Works. The province then provided grants of up to one-third the cost of the work undertaken. Under Chapter 33 of this act, tolls levied by counties or municipalities were permitted to continue for 10 years. In 1903 a provincial Inspector of Tolls was appointed and rates were set at two cents for automobiles and locomobiles. The use of automobiles, mainly for sport and pleasure driving, was steadily increasing. Registration fees were introduced in 1903 and numerous restrictions and penalties were imposed for speeding in the vicinity of horses and for reckless driving. Some of the provincial funding of this period may have been directed to municipalities in the more densely settled pockets of northern Ontario but the effects certainly did not touch Ontario North of 50°.

In 1912 a fund of \$5 million was created for roads, bridges and other improvements in northern Ontario to be administered by the Northern Development Branch of the Department of Lands, Forests and Mines (1912 Geo V C21). This was the first provincial government department to be involved in road construction and maintenance since Confederation in 1867. Grants from the federal government were also made in some cases. The local road and highway systems of settlements in the general vicinity of the present King's Highways 17 and 11 may have received aid under this program.

*Source: References [30] and [31]. The information presented was drawn almost exclusively from these two source documents.

In 1915, the Department of Public Highways was set up under the Minister of Public Works and Highways (1915 5 Geo V 17). The grant and subsidy program was revised to include construction and maintenance to three classes of roads: county, county suburban and main. The latter roads had to be provincially authorized and endorsed by 75 per cent of the municipalities affected. Townships and villages also received subsidies to construct connecting road links. A board of trustees was established to handle each main road, and all places over 10,000 population were to have a commission to designate suburban roads. Again northern Ontario centres probably benefitted from this legislation, but there would be no effects in Ontario North of 50°.

In 1920 the Department of Public Works and Highways was established (1920 10-11 Geo V C22) with full authority to administer the *Highway Act*. In that year responsibility for colonization and colonization roads was transferred to the Department of Lands and Forests (1920 10-11 Geo V C25). A Highway Improvement Fund was set up and funded by a yearly provincial grant of \$3 million for five years plus receipts from permits, licenses, fines and federal subsidies (1920 10-11 Geo V C20).

In 1923, the first provincial government highway map was published by the Department of Public Works and Highways. An annually up-dated edition has been released continuously to the present. In the issue of 1925 an insert on the right hand corner of the map stated: "The importance of the map as a tourist publication was emphasized by the inclusion of the Muskoka Lakes." In 1937-38 a 1-inch to 16-mile map for northern Ontario was prepared for the annual Ontario Highways Map.

Expansion of mining and the forest industry in northern Ontario stimulated the creation of the Department of Northern Development in 1926 with powers to administer the colonization roads program and the Northern Development Fund (1926 17 Geo V C10). This department remained a major factor in all northern Ontario road and highway development until its dissolution by the Hepburn government in 1934. In many respects, the creation of the present Ministry of Northern Affairs in 1975 with its Regional Priorities Budget represents a return to the situation between 1926 and 1934.

The Department of Northern Development was headed by an appointed commissioner with power, among other things, to obtain land for and expend monies on the construction, maintenance and repair of roads. This department became a major factor in the construction of the essential elements of a large part of the present road and highway network approaches to Ontario North of 50°, particularly during the depression period.

In 1931, the Department of Highways was set up with its own minister (1931 21 Geo V C11). In the Great Depression, the administration of the *Unemployment Relief Act* (1932 22 Geo V C4) was shared by the Departments of Public Works and Labour, Mines, Lands and Forests, Agriculture and Highways. In this cost-share program with the Dominion

of Canada, the federal government offered financial assistance for road building, among other things, with the highest rates applying to present and future roads that could become part of a Trans-Canada Highway. The extension of the provincial highways into northern Ontario and the provisions of the *Unemployment Relief Act* led to legislation in 1934 authorizing cost-share agreements between the Minister of Highways and the municipalities of northern Ontario for road construction, improvement and repair (1934 24 Geo V C35). Substantial construction and improvement of the highway network on the southern approaches to Ontario North of 50° were completed under these programs and agreements.

In 1932, the Timiskaming and Northern Ontario Railway was completed from Cochrane to Moosonee. In 1945 the name was changed to the Ontario Northland Railway.

In 1947, the last gap in King's Highway 11 between Geraldton and Hearst was closed. A through route across northern Ontario to the Manitoba border was then available to tourists.

In 1947, Trans Canada Airlines commenced daily flights between Toronto, Sault Ste. Marie and the Lakehead.

In 1947, the Ontario Northland Railway opened Hannah Bay Goose Hunting Camp, thereby launching the development of sportcamps in the tidewater region of Ontario.

In August 1957, the Department of Transportation was established (1957 6 Eliz II C26) with its own minister. It assumed many operational functions of the Department of Highways, including licenses, permits, and regulations. In 1958 it also took over responsibility for the *Highway Traffic Act*, the *Public Vehicles Act* and the *Public Commercial Vehicles Act*. The Department of Highways continued to plan and construct highways as it had done previously.

In December 1949, the initial meeting of the federal government and the provinces was held to obtain agreements on the construction of the proposed Trans-Canada Highway. On April 24, 1950, Ontario signed the *Trans-Canada Highway Agreement* for construction on a cost-share basis, and 43 new construction contracts were let under the program in that year. On September 17, 1960, official opening ceremonies for the Trans-Canada Highway in Ontario were held at Wawa.

In 1959, the federal government launched its *Roads To Resources* program to open new areas in Canada for development. Ontario participated in the cost-share agreement from December 1959 to its termination in March 1967. The original federal/provincial agreement of 1959 involved \$15 million of construction to be shared equally by both governments. Some roads of significance for tourism in Ontario North of 50° were built under this agreement.

A program of remote airport construction and improvement was initiated in the 1970's and has progressed steadily until the present.

On May 20, 1971, the separate provincial Departments of Transport and Highways were placed under a single Department of Transportation and Communications.

In 1971, norOntair was inaugurated; its services have been steadily increased.

The Administrative Organization for Transportation Infrastructure Development, Maintenance and Operation in Ontario North of 50°

The pattern is fairly complicated, a factor that increases the difficulty of effective interface by the private tourism sector, and to some degree by government agencies with responsibilities in the field. Initially, a general schema is presented to indicate broad relationships. This is followed by more detailed outlines for each federal and provincial agency involved. In a concluding section, the Northern Ontario Resources Transportation Committee (NORTC) is given additional attention.

A General Perspective

Chart 5 is intended primarily to provide a convenient reference that can be used effectively in a number of problem and issue situations related to the transportation infrastructure for tourism in Ontario North of 50°. It should prove useful in the discussion of planning procedures presented elsewhere in this report. It is important that tourism interests keep this administrative structure clearly in mind when attempting to interface with forest access road issues and ground transport problems in general. It is all too easy for the tourism interests at both the private and government administrative levels to become mired in a morass of structures and jargon that can quickly dissipate limited financial and personnel resources and blunt the thrust of their attack.

It is to be noted that the functions of agencies indicated in the schema and the accompanying descriptive text are restricted to transport infrastructure in northern Ontario in general and Ontario North of 50° in particular. Many agencies listed here have additional important functions.

The outline identifying the major administrative agencies and their broad functions does not require detailed comment. As stated previously, it is intended essentially to supply the broad perspective required for an appreciation of the detailed outlines that follow. Nevertheless, two salient features require mention. The licensing operations of the federal Canadian Transport Commission are independent of those of the province, although MTC may support or oppose individual applications. Secondly, the Ontario Ministry of Northern Affairs is

the policy and priority planning and funding agency for the construction and improvement of transport infrastructure in northern Ontario, including Ontario North of 50°. The Ontario Ministries of Transportation and Communications and Natural Resources are the implementers of policy and priority directives from MNA and NORTC, and they administer the funds supplied to them.

Detailed View of the Structure

Structures of the major agencies previously identified are outlined in considerable detail in Chart 6. In addition, some interesting research projects are noted.

Northern Ontario Resources Transportation Committee (NORTC)

This ministerial committee that replaced the Access Roads Committee set up in 1954 came into existence in 1968 as a component of the *Design For Development Program* of the provincial government. A secretariat was established that included representatives from each of the member ministries.

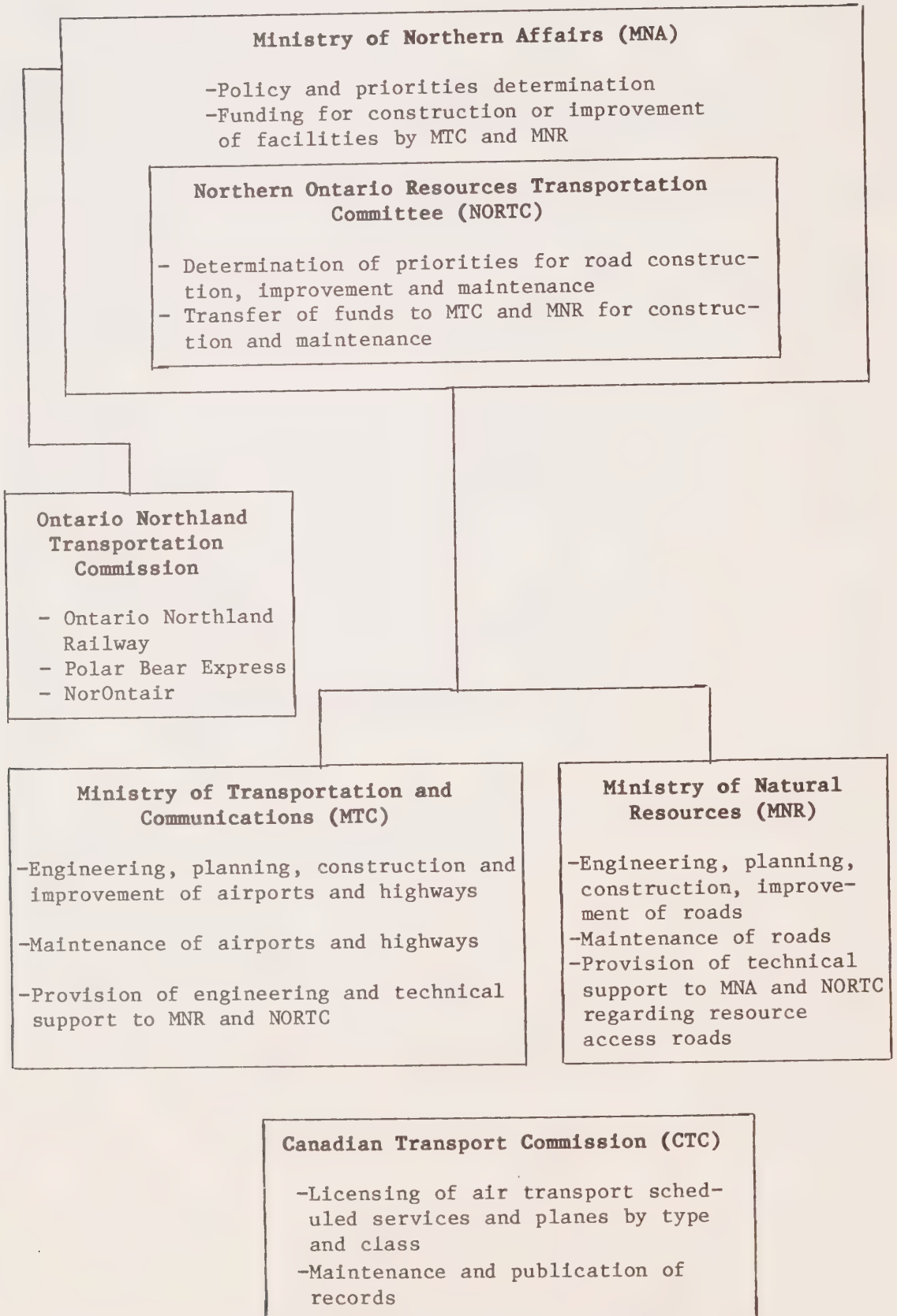
The composition of NORTC has changed from time to time since its inception. In 1968, the Minister of Mines was the Chairman and the Minister of Highways the Vice-Chairman with the Provincial Treasurer and the Ministers of Lands and Forests, Tourism and Information and Trade and Development together with their deputy ministers constituting the committee.

The total absence of ministerial and civil service representation for tourism in the operational administration structure of NORTC is a serious constraint. Since tourism falls within the group of ministries in the Secretariat for Resources Development, a degree of representation might be considered to exist. While it cannot be positively inferred that representation at meetings is a comprehensive measure of influence, it seems reasonable to assume that a substantial measure of correlation may be involved.

The Ministry of Northern Affairs is clearly the dominant provincial government agency in terms of both political and administrative representation at meetings. The Hon. Leo Bernier, Minister of Northern Affairs and Chairman of NORTC, provides the important element of consistency and continuity at the ministerial level. This is combined with deputy ministerial representation at a substantial number of meetings and strong staff support. The Secretariat for Resources Development is represented fairly regularly at the ministerial and parliamentary assistant level but is clearly inferior to MNA in a numerical sense. The Ministry of Natural Resources is weakly represented at the ministerial level but fairly strongly at that of

CHART 5

GENERAL OVERVIEW OF AGENCIES AND FUNCTIONS FOR GROUND AND
AIR TRANSPORTATION IN NORTHERN ONTARIO
1982



A DETAILED SUMMARY OF THE ADMINISTRATIVE STRUCTURE FOR GROUND AND AIR TRANSPORT, 1982

A. Ontario Ministry of Northern Affairs

- Functions - Sets policies and priorities for transport system in northern Ontario on basis of balance of social, economic and political considerations
- Acts as banker for development and improvement of facilities within the system through transfer of funds from its budget as a journal entry to MTC and MNR
- Senior management meets 3 or 4 times a year with officials of MTC and MNR to achieve the above functions

Headquarters Staff

10 Wellesley Street East
Toronto M4Y 1C2

Strategic Planning Secretariat

Director, A.R. Morpurgo

Provides support services to regions, concerned with transport from an overall ministerial perspective

Northeastern Regional Office

421 Bay Street, Suite 301
Sault Ste. Marie P6A 1X3

Northern Regional Development Branch

421 Bay Street, Suite 301
Sault Ste. Marie P6A 1X3

Manager and Forest Access Roads, D. Mann
Transport Economists, R. Wycliffe
T.A. Marcolini
R.D. Zizman

Northwestern Regional Office

12 Main Street South
Kenora P9N 1S7

Northern Regional Development Section

435 James Street South
Thunder Bay P7E 6E3

Manager and Forest Access Roads, W. Parks
Transport Economists, Cecil Smith
D. Maynard

CHART 6 Continued

Concerned with highways, roads, airports, forestry roads, snowmobile trails

Two studies under way by staff of the Northern Regional Development Section in cooperation with other provincial government departments are of significance:

1. High Cost of Living Study, Northern Ontario Remote Communities; Chairman R. Wycliffe, Transport Economist, Sault Ste. Marie
2. Winter Roads Committee (5 members only); Chairman Cecil Smith, Transport Economist, Thunder Bay; Members MTC and MNR; mandate to provide guidelines to NORTC for a winter roads policy.

Northern Ontario Resources Transportation Committee (NORTC)

Chairman, Hon. L. Bernier
Secretary, L. Shorr, Manager, Roads to Resources Program, MTC, Thunder Bay

Budget administered by Ministry of Northern Affairs

See later section on NORTC for full discussion of its function, composition and operations.

Ontario Northland Transportation Commission (ONTC)

195 Regina Street
North Bay P1B 8L3

Ministerial responsibilities and budget appropriations under MNA

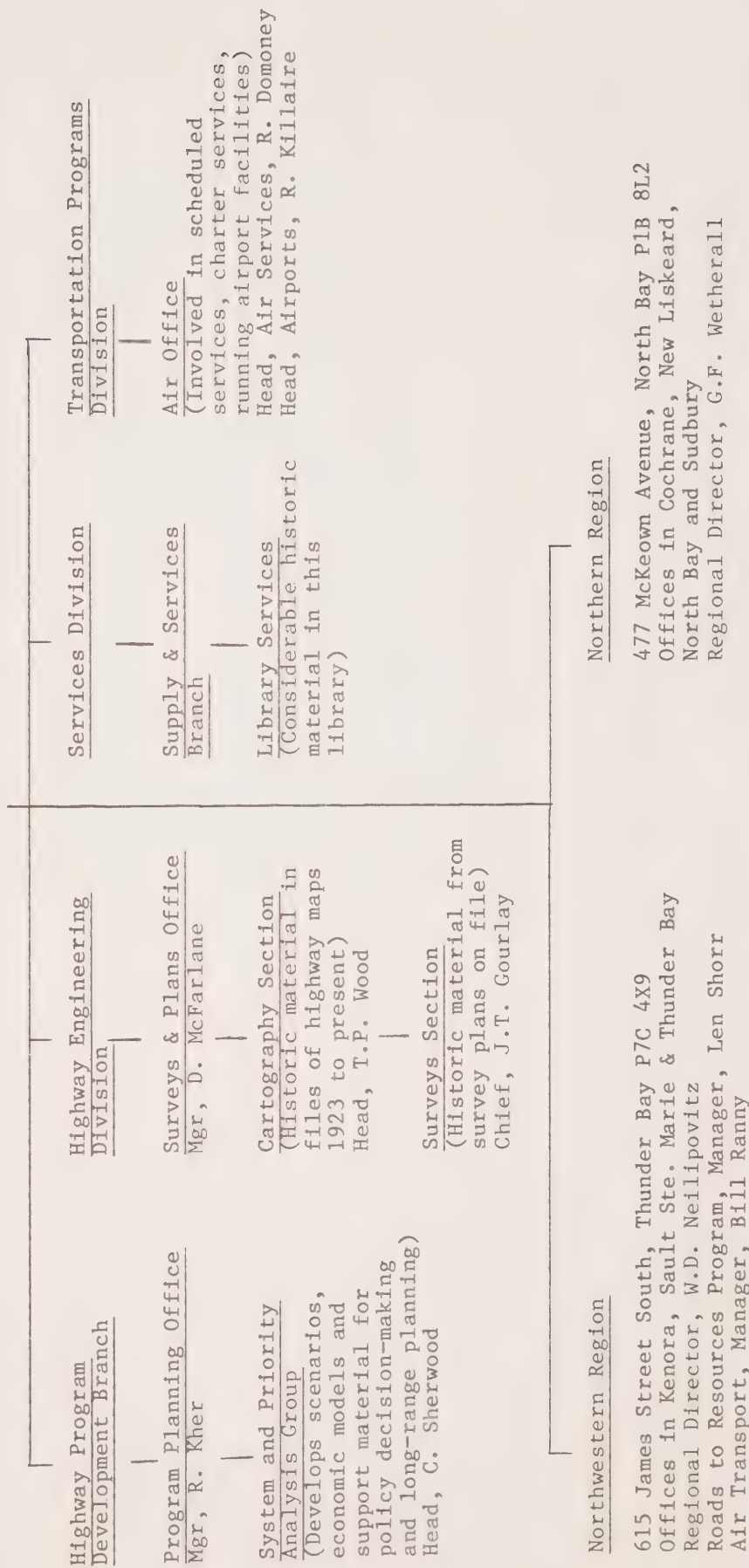
Responsible for operations of norOntair and Ontario Northland Railway (Polar Bear Express)

B. Ontario Ministry of Transportation and Communications

Functions - Executive engineering and design studies for highways and remote airports
 - Constructs and maintains highways and remote airports

Headquarters Staff

1201 Wilson Avenue
 Downsview M3M 1J8



- Have responsibility for engineering, planning, design, construction, improvement and maintenance of highways
- Provide technical assistance to NORTC
- Some MNA and NORTC projects passed to them for execution

C. Ontario Ministry of Natural Resources

Functions - Constructs and maintains an extensive network of resource access roads in Ontario North of 50°

Headquarters Staff

99 Wellesley Street West
Toronto M7A 1W3

<u>Policy Coordination Secretariat</u>		<u>Land Management Group</u>	
<p>Director, M. Fordyce Resources Products Policy Officer, E.E. Multamaki</p> <p>Handles road matters within the Secretariat. Knowledgeable about overall MNR position in policy sense.</p>		<p>Director, E.F. Anderson Resources Access Coordinator, J.M. Small</p> <p>Maintains a general overview of MNR expenditures by regions and districts for various types of MNR roads. It does not have a composite map of roads for all northern Ontario. There is much useful cost information here.</p>	
<u>Northern Region</u>	<u>North Central Region</u>	<u>Northwestern Region</u>	
140 Fourth Avenue Cochrane P0L 1C0	435 James Street South Thunder Bay P7C 5C6	806 Robertson Street Kenora P9N 3X9	
<u>Office of Regional Engineer</u>	<u>Office of Regional Engineer</u>	<u>Office of Regional Engineer</u>	
60 Wilson Avenue Timmins P4N 2S7	Reg Engineer, Mike Paradise		
General and detailed knowledge of regional road situation.	Reg Engineer, Bruce Adamson	Good starting point for studies.	
Cochrane District Hearst District Kapuskasing District	Geraldton District Nipigon District	Dryden District Kenora District Red Lake District Sioux Lookout District	

C. Ontario Ministry of Natural Resources (continued)

The above listed districts of MNR fall in part or entirely within Ontario North of 50°. Within each district, the manager and the local lands officer are most familiar with the road situation. Maps of all MNR roads are available and recourse to the district level administration is necessary to accurately plot and identify ministry and private company forest access roads by name. Sometimes useful historic information can be obtained here, particularly if the responsible staff has been located in a district for a number of years.

An Access Roads Committee was set up by the Northern Ontario Tourist Outfitters (NOTO) Association several years ago. Members of NOTO were appointed to represent tourism interests in each administrative district of MNR insofar as forest access road matters were concerned. Theoretically, they were to inform all NOTO members of road matters within the district that would affect them and they were to represent a formal point of contact for MNR with the tourism industry. Sometimes this same NOTO roads representative was also a member of the Advisory Committee for the district land use planning process.

Each district manager of MNR has considerable latitude in the manner in which he chooses to interface with the tourism sector with respect to forest access road opening and closing within his jurisdiction.

D. Canadian Transport Commission

Les Terrasses de la Chaudière
15 Eddy Street
Hull, Québec K1A 0N9

Air Transport Committee

Operations Branch

R. Smith
R. Landry

The Canadian Transport Commission is the licensing agency. This group has complete information on all companies providing scheduled or charter air services in Ontario North of 50° and on the planes operated by those companies by type and weight class.

CHART 7

COMPOSITION OF NORTC, 1982

<u>Ministry</u>	<u>Representatives</u>
Northern Affairs (Chairman)	Minister & Deputy Minister
Secretariat for Resources Development	Provincial Secretary & Deputy Secretary
Transportation and Communications	Ministerial Parliamentary Assistant & Deputy Minister
Natural Resources (Alternative)	Ministerial Parliamentary Assistant & Deputy Minister
<u>Secretary</u> Len Shorr, Manager, Roads to Resources Program Northwestern Region, Ministry of Transportation and Communications, Thunder Bay	

Source: Secretariat, Northern Ontario Resources Transportation Committee

middle management in the civil service. The pattern for the Ministry of Transportation and Communications is interesting and perhaps surprising. Representation at the political level is minimal and 16 of the meetings attended at the civil service level were connected with the performance of the secretarial function. However, this probably ensures that the ministry is kept up to date on proceedings.

Fairly wide-ranging terms of reference were set forth for the operations of NORTC, with its purposes defined as:

- to recommend to government a continuing flexible transportation route construction and improvement program to promote maximum economic growth and development of physical and human resources in northern Ontario;

- to act as clearing house for northern Ontario transport policy matters;
- to ensure co-ordination between its special programs and the regular programs of other government departments;
- to commission research required to determine priorities in its program;
- to maintain broad consultative liaison with other official boards, commissions or committees periodically appointed to review transportation, government machinery and natural resources in the north;
- to direct the application of funds voted annually for the attainment of the objectives of NORTC. Recently the vote has been in the order of \$4.0 to \$4.6 million for each fiscal year.

CHART 8

MINISTERIAL REPRESENTATION IN NORTC MEETINGS, 1981

Ministry	Cabinet Ministers and Parliamentary Assistants	Civil Servants			
		Assistant Deputy Ministers		Other Staff	
	Meetings Attended	No.	Meetings Attended	No.	Meetings Attended
MNA	11	3	4	7	40
MNR	2			5	19
MTC	1			2	33
Secretariat for Resources Development	4			1	8

Source: Secretariat, Northern Ontario Resources Transportation Committee

Sources of Funds for Road Transport Infrastructure Construction, Improvement and Maintenance

General Pattern

It is important for the tourism sector to have a clear appreciation of the nature of the financial organization for airport, highway and road construction, improvement and maintenance in northern Ontario in general and in Ontario North of 50° in particular. This is especially true in the present atmosphere of confrontation.

As indicated in Table 18 and its ample notations, capital development of transport infrastructure is financed under the vote of the Ministry of Northern Affairs for its Northern Economic Development Program, the former Regional Priorities Budget of that Ministry being reorganized in the budget submission of the 1980/81 fiscal year. Funds are transferred through a journal entry to MNR and MTC to carry out the construction under contract or through the use of their own resources. In effect, these ministries "flow the cash" and take over the implemental operational aspects. Through control of the funding, the Ministry of Northern Affairs determines priorities for highway and road construction in northern Ontario within a broad social-economic-political frame of reference.

Airports are funded from a portion of Vote 703 of the Ministry of Northern Affairs transferred to MTC for this purpose. Maintenance comes entirely from the budget vote of MTC. The construction and maintenance of the airport road are met entirely by the vote of MTC.

The line Ministries of Natural Resources and Transportation and Communications determine the technical aspects, system needs, system planning and cost estimates. They have their own individual votes for maintenance. That of MTC is the major factor, as can be seen from the dollar amounts shown in the table. Some maintenance funds are transferred from NORTC to MNR but these are modest in an overall sense.

Northern Ontario Resources Transportation Committee

The Northern Ontario Resources Transportation Committee functions towards the attainment of its objectives or purposes essentially through two programs of financial assistance for road construction and improvement. While it is not the general policy of NORTC to finance road maintenance, leaving this to private companies and the appropriate line ministries with the major responsibility for these facilities, exceptions have been made in the case of some non-status roads in Ontario North of 50°, including the Jones, Marchington and Moosonee Southerly Roads, all of which are noted subsequently.

In the main, the grant program is operated largely on consideration of the merits of each individual request for assistance submitted. However, acceptance of some projects may more or less commit NORTC to capital and/or maintenance grants over a number of years.

TABLE 18

SOURCES OF FUNDS FOR CONSTRUCTION AND MAINTENANCE
OF ROAD TRANSPORT INFRASTRUCTURE
IN NORTHERN ONTARIO, 1982

Funding Sources and Infrastructural Elements	Budget Estimate 1981/82 \$ Millions
I. <u>For Capital Development</u>	
A. <u>Ministry of Northern Affairs</u>	
All capital development is funded through this Ministry.	
1. <u>Northern Economic Development Program</u> (Vote 702)	
Included in this vote of \$76.2 million in the 1981/82 fiscal year were expenditures for program administration, resources development, industrial development and transportation development (\$43.4 million). Within the latter there are a number of individual items including:	
(a) <u>Forest Access Roads</u>	
Include forestry and recreation/cottage roads.	
(b) <u>Forest Management Subsidiary Agreement Roads</u>	
These are built through a 50/50 cost-share arrangement between the federal Department of the Environment and the Ontario Ministry of Northern Affairs.	
(c) <u>Northern Ontario Resources Transportation Committee</u>	
Expenditures for roads by this agency are a separate item in Vote 702.	

43.4

TABLE 18 Continued

Funding Sources and Infrastructural Elements	Budget Estimate 1981/82 \$ Millions
<p>In the case of items (a) and (b) above, funds are transferred to the Ministry of Northern Affairs as a journal entry for the construction under contract arrangements with private companies or by agencies of the department. Most funds disbursed by NORTC for the construction of winter roads and snowmobile trails by Indian bands and private contractors are transferred to MNR to administer. In effect, Vote 702 is almost entirely transferred to MNR as a journal entry.</p>	
<p>2. <u>Northern Transportation Program</u> (Vote 703)</p>	
<p>Included in this vote are air transport infrastructure (\$2.1 million), rail and ferry (\$16.7 million) and northern roads (\$63.0 million).</p>	
<p>(a) <u>Northern Roads</u></p>	
<p>This vote that is transferred to the Ministry of Transportation and Communications represents the main source of funding for highway and road construction and improvement in northern Ontario. Only a small proportion is directed to Ontario North of 50°.</p>	63.0
<p>3. <u>Northern Community Services and Development Program</u> (Vote 704)</p>	
<p>Some local municipal or community road construction or improvement, including roads to local airports, may be funded from this vote from time to time. In the main, however, the vote is directed to other aspects of community services and general development. It is of interest to note that the construction of other roads within an Indian community is financed 50 per cent by MTC and 50 per cent by the community. The federal Department of Indian Affairs and Northern Development provides the portion of the cost chargeable to the community. The grant provided by the Ontario Ministry of Transportation and Communications is paid only after the work has been completed by or for the community under a contract with a private construction company.</p>	

TABLE 18 Continued

Funding Sources and Infrastructural Elements	Budget Estimate 1981/82 \$ Millions
<p>II. <u>For Maintenance</u></p> <p>A. <u>Ministry of Transportation and Communications</u></p> <p>This ministry has its own vote for maintenance of the highway system in both southern and northern Ontario. In 1981/82 the budget estimates for the entire province were \$180.00 million. Considerable work is required to identify an individual amount allocated to northern Ontario from this provincial total estimate.</p> <p>B. <u>Ministry of Natural Resources</u></p> <p>For northern Ontario, the vote of \$2.2 million in 1981/82 is modest by comparison with that of MTC. This is to be expected, considering the difference in the type and scale of responsibilities in this field.</p> <p>C. <u>Ministry of Northern Affairs - Northern Ontario Resources Transportation Committee (NORTC)</u></p> <p>On occasion, some maintenance funds are transferred to MNR for roads in Crown Land Management Units that are experiencing high volume use and are likely to be put into the provincial system in the near future.</p>	<p>2.2</p>

There is no comprehensive short-, medium- or long-range physical plan or strategy for highway and road development in northern Ontario as a whole or in any part thereof, such as Ontario North of 50°. As previously noted, a Cabinet decision was made in 1968 to rely on air transport for access to remote northern settlements, presumably influencing the decisions of NORTC. There appears to be an overall desire to limit, and perhaps even to curtail, involvement in winter roads and snowmobile trails in this area, at least until the results of the present study of their value are available.

Direct Programs (Non-Shareable)

Road construction, improvement and maintenance projects included under the direct program are considered priority items by virtue of their important social and economic impacts and are therefore funded to 100 per cent of costs. This has been the major program of NORTC over the years and in 1981 accounted for 93 per cent of the \$4.3 million in financial assistance for resource roads in northern Ontario. Included under the Direct Program are:

- (i) Crown Management Main Haul Roads. These roads, considered multi-use facilities in that they are open to the public, are constructed to assist small timber and pulp cutters to harvest the resources of Crown Land Forest Management Units. The Moose Lake Road off the Marchington Road, the Suffel Lake Road near Red Lake and the Pikitigushi Road fall into this category. Some of these roads are now under the Forest Management Subsidiary Agreement between the federal Department of the Environment and the Province of Ontario.
- (ii) Non-Status Roads. These are built and maintained by NORTC funding to MNR and to MTC. Federal cost-share funds through the former Roads to Resources and Department of the Environment programs also have been used in the construction of many of these roads. In Ontario North of 50°, the following non-status roads have received NORTC funding: Jones Road, Marchington Road, Moosonee Southerly Road, Nungesser Road and Pickle Lake Northerly (Windigo) Road.
- (iii) Community Access Roads. These are intended to provide short links to highways. North of 50° they would link reserves to each other or to highway networks to the south. NORTC does not have the money to construct long and costly roads requested from time to time by native settlements.
- (iv) Winter Roads. These are discussed in detail earlier in this report.
- (v) Snowmobile Trails. These are discussed in detail earlier in this report.

Indirect Program (Shareable)

This is a minor component of the assistance program of NORTC, involving small individual amounts and representing between five and seven per cent of the total annual funding. Through this program subsidies are provided to private companies for road construction on a 50/50 share of actual incurred costs up to a maximum of \$25,000 per mile (1.6 km). While there is no upper limit set for the total subsidy per road, the roads are usually 40 km or less in length. The roads are

intended to get materials out, usually timber, pulp or minerals, and the company must be in production to receive a subsidy. Some financial aid has apparently been given for school bus routes. The roads must be constructed to a standard suitable for industrial use. As they are open to the public, the roads are inspected to ensure that they meet required provincial standards.

With the exception of the subsidy to McKenzie Forest Products for the construction of 8.8 km of Class B routeway in the Sioux Lookout Management Unit at an estimated cost of \$351,000, shareable on a 50/50 basis, there have been no developments in Ontario North of 50° under the shareable program component. Funding by NORTC for all types of roads since its inception in 1968/69 to fiscal year 1980/81 is shown in Table 19.

TABLE 19

FUNDING BY NORTC FOR ALL TYPES OF ROADS, 1968/69 TO 1980/81

Year	Cost \$(000)	Year	Cost \$(000)
1968-69	1,250	1975-76	4,500
1969-70	2,100	1976-77	4,000
1970-71	4,200	1977-78	4,000
1971-72	4,000	1978-79	4,100
1972-73	4,000	1979-80	4,600
1973-74	4,150	1980-81	4,600
1974-75	4,483		

Source: Secretariat, Northern Ontario Resources Transportation Committee

The relatively stable amounts from fiscal years 1970/71 to 1980/81, \$4.0 million to \$4.6 million, coupled with the rate of cost increase over that 11-year period, suggest that the physical extent of the work undertaken has been decreasing steadily. The bulk of the expenditure for highway and access road construction under the program has been directed to projects south of 50° North. Given government policy with respect to reliance upon air transport for access to remote settlements in northern Ontario, this focus is likely to persist. In contrast, modest expenditures in the last six or seven years for winter roads and snowmobile trails, discussed in another section of this part of the report, are directed to locations in Ontario North of 50°. The future of this element of the grant program, however, is now under study and it conceivably could be eliminated or substantially curtailed.

Transportation Planning in Ontario North of 50°

Policy/Strategy Planning

Early in 1970, the planning group at the Ministry of Transportation and Communications headquarters at Downsview was requested by the Cabinet Committee for Resources Development (CCRD) to examine prospects for an integrated approach to air, road, rail and water transportation in far northern Ontario, including Ontario North of 50°. In this study, transport was viewed from both economic and social perspectives, with considerable emphasis on the latter.

It was clear that road development was increasingly encountering problems in northerly areas. The remote settlements were small and dispersed. Some Indian communities were strongly opposed to road connections with southern urbanized centres. While a routeway can be selected through high ground with reasonable success, the attainment of high quality aggregates within economic hauling distance is often a severe constraint. Finally, three km of tarmac or gravel strip runway and an access road from a settlement to its airport were cheaper than 240 km or more of costly all-weather roadway with associated bridging. Considered from another perspective, it could be stated that trade-off was required between lower government costs for airport construction and maintenance and higher personal travel costs associated with air fares.

On the basis of these investigations and other supporting considerations, the provincial Cabinet Committee for Resources Development recommended to Cabinet that access requirements for remote northern settlements be provided primarily through airport development rather than all-weather roads or waterways. Interestingly, there was no public statement from Cabinet, CCRD or MTC with respect to this policy decision. The rapid construction of the airports in the remote settlements was of course a tangible manifestation of actual policy decisions on the landscape.

There are no master plans to extend the network in keeping with this policy beyond the present facilities. However, airstrips will be built in settlements currently resisting them should they change their position, and improvements are steadily introduced to the facilities now constructed.

A report on *Transportation & Living Costs in Remote Northern Ontario Communities* was released in 1983. The study task force was chaired by the Ministry of Northern Affairs and included representatives from six other ministries. With respect to transportation, recommendations were made regarding air transport, all-weather roads, winter roads and marine transport. Some of these have significant implications for tourism planning and development in Ontario North of 50°.

In 1981, the Ministry of Transportation and Communications completed a review of operational patterns in remote airports that in many respects could be classed as a policy effectiveness evaluation. Some data useful to tourism planning are contained in this report.

In 1981, a small three-member committee chaired by a transport economist, Ministry of Northern Affairs, Thunder Bay, with representatives from the Ministries of Natural Resources and Transportation and Communications, was set up to look into the question of a winter roads policy for NORTC. There are two phases to the work program. The initial definition of the terms of reference to guide the work of the committee has been completed and submitted to NORTC for approval. As part of this study, extensive discussions were held with people in Manitoba where winter roads have been in operation for some time.

In 1978, a review of transportation in the Kayahna Council area was undertaken by a consultant company with funding provided by the Ontario Ministries of Natural Resources and Northern Affairs [1]. Included in the study were the following communities: Big Trout Lake, Wapekeka, Kingfisher Lake, Wunnummin Lake, Kasabonika, Fort Severn, and Long Dog Lake.

The study was instituted largely in response to the expressed desire of Big Trout Lake to enter into the air transport business on a community basis and efforts of a federal group looking to increased employment opportunities in the area. From the transportation point of view, several recommendations were advanced, including:

- that a separate transportation business be established within each Economic Development Corporation in the Council Area;
- that the Economic Development Corporations of Big Trout Lake and Fort Severn arrange to erect a terminal building on the airport site with passenger amenities and freight storage capacity;
- that the Ministry of Transportation and Communications be encouraged to install and maintain night lighting at permanent airstrips in the Kayahna area and that a reliable private non-directional beacon be installed;
- that the Kayahna Area Council, on recommendation of each Community Economic Development Corporation, appoint a freight coordinator/expeditor;
- that an all-weather road be constructed between Big Trout Lake and Wapekeka (Angling Lake);

- that the Kayahna Area Council set up a negotiating committee to initiate discussions with Brian Barfoot, owner of Big Trout Airways, with the intent to purchase his airline at an estimated cost of \$200,000 to \$260,000, with the money to be raised by the sale of common shares to individuals living in the Kayahna area. If the money could not be raised in this manner, then the attempt to purchase the airline should be terminated and the idea considered not feasible and rejected due to lack of individual support. This appears to be a "neat way" to push native ownership of local airlines in Ontario North of 50° into the background, probably because native people are considered incapable of operating such sophisticated business ventures.

Physical System Master Planning

Insofar as the remote airport program is concerned, there has been no need for extensive and sophisticated master planning. The policy decision of CCRD simply required the steady introduction of facilities in the communities. Priorities were more a direct result of the urgency of community needs, largely a function of size and the desire of the population to have such a facility constructed. Two communities still resist the introduction of airports for a variety of reasons.

There has been no medium- or long-range physical system master planning for a highway and road network in any part of Ontario North of 50° by MTC, MNR, MNA or NORTC. Moreover, nothing of this type is contemplated in the near future.

Project/Facility Planning

Feasibility and engineering studies were completed for or by the Ministry of Transportation and Communications for all remote airport constructions undertaken. No attempt was made to evaluate this group of project studies systematically. Interestingly, current and future tourism transportation requirements are not specifically examined in any report. Nevertheless, the reports frequently contain general community profile information that has application in some aspects of policy, strategy and project planning and development for tourism in Ontario North of 50°.

The work of the Highway Program Planning Office at MTC headquarters, Downsview is highly project-oriented, even though it is termed a program planning unit. The four planners on staff, one of whom concentrates on northern Ontario, essentially monitor traffic growth statistics assembled by the Ministry, together with natural resource and community development information from a variety of sources, in order to identify and respond to needs as they emerge or are brought to their attention by various political and administrative processes and procedures. In their work, no special attention is given

to tourism, but this may be one of several aspects considered in the assessment of a particular situation. When such is the case, the data base employed is almost exclusively that available in studies of the Ministry of Tourism and Recreation or private tourism groups such as the Northern Ontario Tourist Outfitters Association.

While there is no planning by MNR for a comprehensive access road system across all northern Ontario, or Ontario North of 50° in particular, there is a strong element of road planning within the forest management plans of private companies for the harvesting of their individual limits. Moreover, road planning is and will continue to be an important component of the Forest Management Agreements that soon will encompass most or all of northern Ontario where commercial forests are present.

The companies submit *20-Year Management Plans* to MNR district offices showing areas to be harvested and reforested, and these are subject to public review. The plans are shown at most if not all meetings held with outfitters and their associations or organizations to discuss access road problems. They are reassessed every 20 years. For example, those of Boise Cascade formulated in 1967 will be reviewed in 1987 and those of Great Lakes Paper prepared in 1971 will be subject to this process in 1991. Plans for Crown management units in the Red Lake District prepared in 1966 will be reassessed in 1986.

The *Five-Year Operating Plan* provides more specific information with regard to areas to be harvested and reforested and the roads to be constructed. For example, the five-year operating plans of Great Lakes Paper are dated 1976, 1981, 1986; those of Boise Cascade 1972, 1977, 1982. These plans also are subject to public review and tourist operators can see them at any time on demand. Each plan submitted by the company for an FMA or prepared by MNR for a Crown management unit must be deposited in the district office of MNR for public review for at least 30 days prior to signing by the Ministry.

The *Annual Operating Plan* prepared by the company must be submitted to the MNR district office by April of each year. Meetings with tourist operators and other interested parties are scheduled for the following month of May.

In the case of roads constructed under Forest Management Subsidiary Agreements, studies are completed for each proposed development to determine if the investment is economically feasible. In the studies to date, tourism receives limited attention, amounting to little more than a listing of commercial hunting and fishing camps in the vicinity. Sometimes tourism interests submit briefs to MNR or other government agencies, as did the Kenora District Tourist Outfitters Association in the case of the Redditt FMSA Road to the Minaki Crown Management Unit.

The crucial matters of tourism sector involvement in forest access road planning and the various approaches and institutional arrangements devised to facilitate an effective interface between private companies, the district staff of the Ministry of Natural Resources, commercial tourist and remote sportcamp operators, and the general public have been discussed at length in various sections earlier in this report.

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